An Address
ON
THE PRESENT POSITION OF ABDOMINAL SURGERY.

Delivered before the Medical Society of London on April 14th, 1890,

BY W. A. MEREDITH, M.B., C.M.

MR. PRESIDENT AND GENTLEMEN,—A consideration of the present position of abdominal surgery necessarily involves comparison with the former state of this same department of surgical practice, and one cannot do otherwise than inquire into the causes which have led to the wonderful progress recorded in it during the past ten years. The present range of abdominal work includes operative measures for disease or injury of every organ or structure contained within the abdominal cavity, including the liver and gall-bladder, the spleen and the pancreas, the kidneys, ureter, and bladder, the stomach and intestinal tract, the uterus and its appendages, and, finally, the peritoneum itself, as well as the tissues underlying its various folds. So extensive a field for legitimate operative interference contrasts strongly with that to which the surgeon's knife was restricted so lately as some twelve or fourteen years ago. In 1877, when my attention was first directed to abdominal surgery on joining the staff of the Samaritan Free Hospital, the work in this department was practically limited to the removal of ovarian tumours. True, other abdominal or pelvic growths were occasionally subjected to surgical interference, but such operations were of rare occurrence, and, for the most part, resulted from errors in diagnosis. The mortality following ovarian operations was exceedingly high. Thus, in Sir Spencer Wells's work on Ovarian and Uterine Tumours, published in 1882, the record of ovarian cases operated on during the years 1876 and 1877 (150 in number) shows twenty-nine deaths (a mortality of 19·3 per cent.), and of these fatalities no less than twenty-three are attributed to septicæmia or to septic peritonitis. The prevalence of such a mortality from septic poisoning was of itself sufficient to check all progress in abdominal surgery, and the chief causes on which it depended seem well worthy of our brief consideration. They may, I think, be summarised as due to imperfections in the methods of dealing with the ovarian pedicle, notably by the common use of the clamp as opposed to that of the intra-peritoneal ligature; and, further, to the fact of inadequate recognition of the absorbent powers of the peritoneum—both for good and for evil,—resulting in defective measures for the avoidance of the introduction of septic or potentially septic material into the abdominal cavity. The performance of long-deferred operations—commonly preceded by more or less frequent tappings, with their long train of evil consequences—must also be taken into account, as sharing responsibility for the numerous fatalities which formerly followed upon the removal of ovarian tumours. The use of the *clamp* was undoubtedly the most direct factor in the causation of this mortality. The fact that in London, at all events until the end of 1877, treatment by the intra-peritoneal ligature was practically restricted to cases where the comparative shortness of the ovarian pedicle rendered the application of the clamp unadvisable must be taken as to some extent explanatory of the survival of the extra-peritoneal method; since it is evident that the operation in cases of such a nature would, in all probability, however conducted, entail greater risk to life than would be incurred in the removal of tumours characterised by the existence of a long free pedicle. The dangers attending the use of the clamp chiefly arose from the ready channel thereby afforded for the entrance and spread of septic material in the peritoneal cavity; while the further risks of hæmorrhage on its removal, and the subsequent prolonged and tedious convalescence, would now appear to have constituted amply sufficient reasons for its condemnation long before the year 1878, when it was finally abandoned in favour of the intra-peritoneal ligature.

The next most important advance in connexion with ovariotomy was the application of Lister's antiseptic system to this department of surgery—an innovation introduced in the practice of the Samaritan Hospital by Mr. Knowsley Thornton in the end of 1877. Without entering into the vexed question of the relative value of antiseptics and of plain water as used at the present day, I will merely express my conviction that the teachings of Lister by directing attention to the advantages of *cleanliness* in the widest acceptation of the term have, directly or indirectly, done more to promote the present position of abdominal surgery than anything else during the past ten years. I say this advisedly, because it seems to me that the routine use of lotions, whether antisepticised or not, has instituted a cleanliness in operative procedure which was quite unattainable under what I will call the dry method, when no special means were adopted for the proper cleansing of either hands, instruments, or occasionally even of sponges, during the performance of an operation. The two remaining important factors in the present improved results of ovariotomy, as of all abdominal work, are drainage and flushing of the peritoneal cavity.

Drainage by means of a glass tube introduced to the bottom of the pelvis through the abdominal incision was formerly looked upon with but little favour. The tubes then commonly in use were unnecessarily large and clumsy, and the means adopted to prevent putrefaction of the escaping fluid, and consequent risk of the entrance and spread of septic mischief within the peritoneal cavity, were most unsatisfactory. The employment of tubes of smaller calibre, of which the opening is safeguarded by the use of a perforated rubber sheet enclosing one or more sponges for the absorption of the escaping fluid, has done much to render drainage both safe and efficacious.

The plan of *flushing out* the peritoneal cavity for the removal of effused fluids or of blood-clot, in conjunction with subsequent drainage, has proved of immense value in ovariotomy, as well as in numerous other abdominal operations,—more especially when undertaken for injury or rupture of the hollow viscera. By no other means can such effectual cleansing be ensured; and, however the results of the procedure be explained, its success cannot be denied. The addition of antiseptic substances—whether carbolic acid, corrosive sublimate, or what not—to the water used is fraught with risk of poisoning, and can do no possible good. The precaution of using previously boiled water is not essential to success, providing always that the fluid employed be free from actual septic contamination. The results obtained by this treatment, while partly due no doubt to the mechanical removal of injurious substances by the outgoing stream of water, further depend, in all probability, upon the dilution of otherwise noxious fluids, and also upon the breaking up and possible solution of solid particles which might, if allowed to remain in concrete form, afford a nidus for the development and multiplication of septic organisms. The peritoneum, owing to its marvellous absorbing power, aided or not by mechanical drainage, is thus enabled, by rapidly removing the fluid remaining in its cavity, to deprive existing micro-organisms of the nutritive material requisite for their development; while these latter are themselves, in all probability, also absorbed, and subsequently either destroyed in the blood or excreted through the kidneys. These facts, while explaining the beneficial effects both of draining and of flushing the peritoneal cavity, further illustrate two points in connexion with the after-treatment of abdominal operation cases—viz., the inadvisability of administering opium, and the possible advantages of giving saline purgatives in certain conditions.

As regards *opium*, I feel certain from my own experience, both before and since giving up its use, that the routine administration of this drug, as formerly recommended and practised, is a mistake, owing to the restraining influence thereby exerted on the processes of absorption and excretion. Without going so far as to say that it should never be employed for the relief of pain, I am strongly of opinion that its use should be most strictly limited after peritoneal operations, and that patients, as a rule, recover most easily without it. The *rationale* of the action of *saline purgatives* in the treatment of early symptoms of peritoneal mischief can, from my point of view, be explained only on the grounds of their promoting absorption through intestinal excretion; and, as agents of this description, I can conceive good effects from their judicious administration in cases where no actual obstructive interference with intestinal peristalsis is present. Given the existence of such

obstruction, whether due to fæcal impaction or to adhesive inflammation, ineffectual attempts at purgation, by inducing paresis of the bowel above the seat of difficulty, cannot but result in harm. In cases of such nature I much prefer to administer belladonna in twenty-drop doses of the tincture; this drug, by influencing peristalsis, will, when persevered with, usually overcome the difficulty. The gradual improvement in ovariotomy results during the period referred to may be here illustrated by some comparative records of the work done at the Samaritan Hospital in this connexion during three separate periods in the course of the past twelve years. In 1878 and 1879, of 170 operations, 24 proved fatal—a mortality of 14·1 per cent. In 1886 and 1887, of 140 cases 10 died—a mortality of 7·1 per cent. In 1888 and 1889, out of 130 cases, 6 died—a death-rate of only 4·3 per cent. to compare with that of 14·1 per cent. in the corresponding records of ten years before.

Uterine tumours.—Until ten years ago the results obtained in this branch of abdominal surgery were eminently unsatisfactory; treatment of the uterine stump, whether by intra-peritoneal ligature or by extra-peritoneal compression with the old-fashioned ovariotomy clamp, being followed by a terrible mortality, due either to hæmorrhage or to septic poisoning. In the tabulated record of hysterectomies given in Sir Spencer Wells's book before referred to, of seventeen cases operated on within the four years immediately preceding 1880, no less than eight proved fatal—a mortality of 47 per cent. As a consequence surgical interference with uterine tumours was formerly looked upon with disfavour, all the greater because of the erroneous opinion then prevailing that such growths very rarely, if ever, proved dangerous to life. In 1880, the extra-peritoneal treatment of the uterine stump by means of Koeberle's serre-nœud was introduced at the Samaritan Hospital by my colleague, Dr. Bantock. Dr. Keith, then of Edinburgh, who up to the end of 1879[1] had performed hysterectomy six times with but one death, by the help of this instrument, had employed it since 1873; but the attention of the profession in London had apparently not been directed to the great advantages entailed by its use, which have led to its general adoption from the date of its first introduction here. The record of hysterectomies performed by this method in the Samaritan Hospital during the past four years, shows 82 operations with 15 deaths—a mortality of 18·2 per cent., this latter figure indicating a reduction of 60 per cent. on the death-rate of 47 noted above as here prevalent previously to the adoption of the serre-nœud. My own results to date, in connexion with this operation, show 6 deaths out of 30 cases; but of these fatalities 4 occurred among my first 10 cases, and the remaining 2 among my last 20 patients, thus giving a reduced death-rate of but 10 per cent. in this later series of operations. My object in mentioning these facts is to point out that success in this procedure depends greatly upon familiarity with its details, not alone as regards the management of the tumour, but further as concerns the proper adjustment and treatment of the uterine stump. The extraction and removal of tumours chiefly involving the fundus or upper portion of the uterine body—even though of considerable size, 20 to 30 lbs. in weight—is commonly a matter of no very serious difficulty, and need not here detain us. But, in a certain proportion of the cases requiring interference on account either of intractable hæmorrhage, or of increasingly injurious pressure effects, often caused by the presence of comparatively small growths, the operation is by no means a simple matter. Complications arising from extension of the growths beneath one or possibly both broad ligaments, with accompanying upward displacement and close adherence of the urinary bladder to the anterior surface of the tumour—as a consequence of its original development from the lower segment of the uterine body—often necessitate extensive enucleation in order to form a pedicle for the application of the serre-nœud wire. Occasionally, in such instances, the removal of the uterine appendages may be found feasible; and should then be performed in place of the alternative operation of hysterectomy. But, more often than not, in cases of such nature as that above described, the first-named procedure is not available with safety, and the major undertaking has to be faced. The chief dangers entailed thereby are due to *hæmorrhage*, which must, in the first place, be avoided by securing the ovarian vessels in either side of the uterus. This is to be effected by transfixion and ligature of both broad ligaments below the level of the uterine appendages, and followed by their subsequent division after means have been taken to control the return circulation from the upper portion of the tumour, by the use of compression forceps. The next step required is that of freeing the displaced bladder from its connexions with the anterior surface of the tumour. With this object, a horizontal incision through the capsule of the growth, beginning and ending at the seat of ligature of the broad ligament, is carried across the front of the tumour, passing at a level of half an inch, or rather more, above the upper limit of the adherent bladder, which is then stripped downwards sufficiently to avoid its subsequent inclusion in the serre-nœud wire. Should these means not suffice for securing a suitable pedicle, resort must be had to further enucleation, necessitating the constriction of the base of the tumour by the use of an elastic ligature twice looped, and secured by clamping with artery forceps. Care should be taken to include in this ligature both the ovarian pedicles, and also the free border of the previously divided capsule connected with the fundus of the bladder. A horizontal incision through the uterine capsule, connecting at either end with the seat of ligature of the broad ligament, is now carried across the posterior aspect of the tumour, the base of which is then rapidly enucleated sufficiently to admit of the application of the serre-nœud wire below the level of the elastic ligature, which is subsequently removed. The ultimate success of the operation, as before stated, depends in great measure upon the proper adjustment and management of the stump, by the adoption of means for ensuring the early protection of the peritoneal cavity from the dangers entailed upon it by the necrosis of the tissues constricted by the wire. The tumour having been cut away, after transfixion of its pedicle by a stout pin passed immediately above the wire, the distal portion of the remaining stump is to be trimmed down as much as possible, and its raw surface is then covered in by lacing together the edges of its peritoneal investment with a continuous suture. The margins of the divided parietal peritoneum are now accurately adjusted around the stump in the groove formed by the wire, before being closely united at its upper border by a silk suture, which should also include a fold of the peritoneum covering the posterior aspect of the stump immediately below the wire. The ends of this stitch are then cut off short, and the rest of the abdominal incision is closed in the usual manner. Finally, the stump is surrounded and covered in with dry absorbent dressings, which should be left undisturbed for at least five or six days.

The treatment of *pedunculated uterine outgrowths* by intra-peritoneal ligature (*myotomy*), and subsequent sealing of the stump by uniting the edges of its peritoneal investment by suture, is a very successful procedure in properly selected instances, and its further consideration need not here detain us.

Removal of the uterine appendages for the arrest of hæmorrhage, due to growth of fibro-myomatous tumours, is an operation of undoubted efficacy when thoroughly performed in suitable cases. Unfortunately, however, as already stated, complete removal of both ovaries and tubes is not always possible, in consequence either of the size or of the mode of development of uterine tumours; and hence the necessity for resort to more radical measures under such circumstances. The chief objects to be aimed at in the performance of the operation in question are, first, to avoid puncture of any of the frequently much enlarged vessels of the pampiniform plexus; and, secondly, to ensure the complete removal of all ovarian tissue. It is not sufficient, in this latter regard, to aim merely at constricting the broad ligament clear of the base of the ovary, but in such close proximity thereto that some portion of ovarian tissue is perforce allowed to remain on the distal side of the ligature, when the ovary and tube are cut away. If the operator be content with this, some return of uterine hæmorrhage may almost invariably, I believe, be expected to take place; possibly becoming in time so free and persistent, in the case of a young and full-blooded patient, as to render subsequent resort to hysterectomy advisable. Accepting the theory of the ovarian influence as the factor in menstruation, it seems probable that the recurrence of hæmorrhage under the circumstances referred to can best be accounted for by the fact of a

[1] See Contributions to the Surgical Treatment of Tumours of the Abdomen. By Thomas Keith, M.D. Edinburgh: 1885.

re-establishment of circulation in the distal portion of the pedicle sufficient to restore and subsequently maintain the ovarian influence. Mr. Lawson Tait's views as to the importance of the tubes in connexion with menstruation are well known; and there is the further theory regarding its dependence upon a special centre in relation to a nerve branch, which may or may not be destroyed by the operation. The whole subject, although frequently discussed, has not as yet been definitely settled, and it is to be hoped that further light may be thrown on it in the course of the present debate. With regard to the immediate results of these operations, the mortality, in the hands of skilled operators, is extremely small, as judged by the latest published statistics in this connexion.

Removal of the uterine appendages for disease.—Operations of this description involve questions of very serious import in view of their adoption, in a large proportion of instances, for the relief of suffering presumably due to conditions which of themselves cannot always be said to either directly threaten, or to necessarily tend to endanger, life. Were no such risk entailed by the operation itself, the question of its performance—apart from certain considerations to be hereafter mentioned—might become one of simple expediency in any given case. But the fact that, even in the hands of the most skilful and experienced operators, the procedure does show a certain direct mortality, even though a comparatively small one (1 in 20, or possibly somewhat less), requires to be noted; while, on the other hand, the increasing frequency with which such operations have, during the past five years, been undertaken both in this country and in the United States, by operators of various degrees of competency in abdominal work, would lead one to fear that the actual death-rate of the procedure is considerably higher than may be generally supposed to be the case. In attempting to deal with this subject, it seems to me that two main questions regarding it require consideration, in order to enable us to form a correct opinion as to the value of such operations. The first of these inquiries concerns the *nature* of the cases calling for surgical interference of this description; and the second has regard to the *ultimate results* of such treatment upon the welfare, both bodily and mental, of the patients. First, then, as to the *nature of the cases in which the operation is indicated*. A reference to the tabulated record of 474 operations of removal of the appendages for chronic inflammatory conditions, contained in Mr. Lawson Tait's recently published work on Abdominal Surgery, shows the following relative proportions of these several conditions. Taking the last hundred operations there recorded (pp. 415–416) as having been performed during the course of about seventeen months—i.e., between Dec. 1st, 1887, and May 6th, 1889, the cases may be grouped as follows: 45 cases of pyosalpinx, 9 of hydrosalpinx, 43 of chronic ovaritis, 1 of exanthematic ovaritis, 2 of abscess of the ovary. These figures show a relative proportion of 54 per cent. of operations for tubal disease, and of 46 per cent. for chronic inflammatory conditions of the ovary; or, again, of 47 per cent. for suppurative disease chiefly involving the tubes, and of 53 per cent. for non-suppurative disease, including nine cases of hydrosalpinx.[2] The decision in a given case as to the extent to which the symptoms complained of are, directly or indirectly, due to a diseased condition of one or both appendages, possibly characterised merely by some degree of enlargement with prolapse, is often a matter of great difficulty. There can, I think, be no doubt that the suffering entailed by, or at all events attributed to, such disease is often altogether disproportionate to the actual extent of the existing mischief; while again, on the other hand, the reverse of this statement may in exceptional instances be equally true; as when a patient with both tubes closed, and so distended with pus as to constitute a real danger to life, suffers to so comparatively slight an extent as to be able to continue the performance of her daily household duties without suspicion of the seriousness of her condition.

The first point for consideration in a case involving the question of surgical interference, on account of suffering presumably connected with tangible disease of the uterine appendages, is whether such disease be of a nature to involve more or less actual risk to life if not removed. The answer to this question must necessarily depend, to a large extent, upon the experience and skill of the investigator, aided, perhaps, by the use of an anæsthetic. As a rule, it may be taken that advanced *suppurative* (or *hæmorrhagic*) disease of the tubes—as characterised by the existence of definite swellings—*is* of such a nature, and that extirpation of the diseased organs is a necessary procedure for ensuring the welfare of the patient. The difficulty of accurate diagnosis between a pyosalpinx and a hydrosalpinx, of which the existence cannot be definitely assumed on the grounds of a history of occasional discharge of watery fluid from the uterus, must here be taken into account. But inasmuch as the last-named condition of the tube, when coexistent with permanent adhesive closure of both its fimbriated and its uterine extremity, may readily pass on to suppuration, its successful treatment by operation, under erroneous diagnosis, is not necessarily a matter for regret. An important point in connexion with all forms of disease of the appendages may here be alluded to—viz., the extreme inadvisability of the pursuance, under such conditions, of active *uterine* treatment for the relief of so-called dysmenorrhœal pains associated with them. Such treatment can do no good whatever, and I am sure that in the great majority of cases it does infinite harm, by maintaining and intensifying already existent mischief.

The cases in which the indications for operative interference are most difficult to define are those of so-called *chronic inflammatory diseases* of the ovaries, where one or both organs are more or less enlarged, prolapsed, and possibly partly fixed by adhesion in the pelvis. The question of operation here arises, not so much in consequence of danger to life, as in view of the probability of *prolonged invalidism* entailed by the condition, if not relieved. The reply to this question must necessarily, in any given instance, to some extent depend upon the social condition of the patient, whether, in the higher or in the lower ranks of life. In either case I believe that operative measures should neither be suggested nor adopted until the well-ascertained failure of a course of persistent treatment of a general and *not* a local character, consisting in judicious management directed towards the relief of pelvic congestion and the avoidance of anything tending thereto, has proved conclusively that nothing short of operation will afford relief, or, what is still more important in hospital practice, will enable the patient to earn her livelihood. I am convinced, from my own experience of the results of persistent treatment by such measures, that the question of operative interference may thus not unfrequently be long deferred, if not entirely set aside. At the same time, in a certain proportion of such cases, more especially where the ovary is involved to any extent in perimetric adhesions, nothing short of operation will succeed in effecting restoration to health; and resort may then be had to such treatment, after the nature of its risks and its possible consequences have been fully explained to the patient and to those most nearly related to her.

The symptoms usually found associated with the condition now generally known as *cirrhotic ovaries* partake so largely of the character of neuroses, suggesting the cerebro-spinal or sympathetic systems as the original seat of mischief, that the extirpation of such organs, unless prolapsed and distinctly adherent in the pelvis, is commonly a procedure of doubtful expediency.

Turning now to the question of the *ultimate results of operations involving complete removal of the appendages for chronic inflammatory disease*, one cannot but feel that we require much more carefully sifted evidence than we at present possess on the subject, to enable us to form a sound opinion as to the value of such treatment in certain conditions. In reality we know but very little regarding the true influence exerted upon the bodily and mental welfare of womankind by the ovaries; and although our knowledge of this as of other subjects is increasing year by year, we are as yet far from being in a position to define the real extent of such influence. Complete restoration to health, after the extirpation of these organs for certain of the diseases which we have been here considering, is not unfrequently delayed for two, three, or more years from the date of operation. This fact, depending in great measure upon very gradual improvement in the general health and consequent restoration of nerve power, is not to be explained solely on the ground of the slow establishment of an artificially induced menopause, since it is not in keeping with what commonly occurs after the removal of both ovaries for diseases other than those termed chronic inflammatory conditions. Nor,

[2] I would here say that in abstracting these figures from Mr. Tait's tables, cases in which mention of two distinct conditions occurs have been classified under the name of the disease standing first in order, as being probably the best marked in its features.

again, should the further fact be overlooked that in some instances of cirrhotic disease of the ovaries, more especially when any hereditary taint of nerve trouble exists, the extirpation of these organs may result in complete failure as regards relief from suffering, owing to the subsequent transference to some other region of the body of the pains formerly attributed to the pelvic condition. It is with regard to the after-history of cases, considered from various points of view, that we require accurate information; and this can of necessity be obtained in sufficient amount for the formation of any sound conclusions only from those operators who have had a very large experience in this field of abdominal work.

Operations in connexion with *extra-uterine* or *ectopic gestation* in its various stages have been gradually becoming more frequent of late years, and the advances made in the study and treatment of one of the most terrible mishaps to which womankind is exposed, have undoubtedly in great measure resulted from the teachings and example of Mr. Lawson Tait. While admitting the possibility of the so-called *ovarian* form of gestation, Mr. Tait considers its occurrence "non-proven," and maintains that the great majority of ectopic pregnancies originate in the Fallopian tube, most commonly in the free portion, and but very rarely within the part embraced by uterine tissue; this latter form constituting the *tubo-uterine* or *interstitial* variety. The origin of the abnormal development is stated, and generally believed at the present day, to depend upon the arrest and fertilisation of the ovum in a tube, of which the lining membrane has been destroyed or altered in character, as a consequence of the action of some specific inflammation—gonorrhœal or other. The subsequent growth of the fertilised ovum invariably leads to rupture of the distended tube, at a period varying somewhat according to the seat of original implantation—viz., before the fifth month in the interstitial gestation, and at or about the end of the third month in the more ordinary tubal variety. The existence of an abnormal pregnancy is unfortunately, as a rule, marked by no definite subjective symptoms leading to a suspicion of what is taking place; and pelvic investigation during the early weeks, by revealing the presence of a swelling to one or other side of or behind the uterus, usually leads to no definite diagnosis of the actual state of matters. In the majority of instances the sudden occurrence of pain, accompanied by signs of internal hæmorrhage, and possibly by the passage of a decidual membrane, are the first indications of what has taken place.

Given the possibility of an accurate diagnosis of ectopic gestation before rupture has taken place, the proper course to pursue in the interstitial variety would be that of puncture and evacuation of the sac through the uterine cavity; while in the more ordinary tubal form of gestation, abdominal section and removal of the diseased appendage would be indicated. Unfortunately, however, as already pointed out, opportunity for early interference is rarely obtained in these cases, and the first indications of the true state of affairs is usually coincident with the occurrence of rupture of the distended tube. Such rupture in the *interstitial* variety is invariably *intra-peritoneal*; while in the *tubal* gestation it may be either *extra-peritoneal*, constituting a broad ligament hæmatocele; or *intra-peritoneal*, when the blood is poured out into the abdominal cavity. The former of these accidents, marked by hæmorrhage into the potential cavity of the broad ligament, requires no active interference of any kind at the time of its occurrence. The fœtus may die, and be absorbed together with the effused blood, as in the case of an ordinary hæmatocele; or, after developing to some extent, it may die and remain quiescent as a lithopædion; or, failing this extremely rare event, the sac may suppurate and require surgical interference for its evacuation. The same may be said of the cases where suppuration of the effused blood takes place at an earlier stage, both of these conditions requiring treatment similar to that indicated for ordinary pelvic abscesses—viz., abdominal section and drainage of the suppurating cavity.

Should gestation *not* be arrested after extra-peritoneal rupture of the tubal sac, the fœtus may develop in the pelvic tissues, and be thence removed at term as a viable child. Failing this, its death during the later months of pregnancy will be usually followed by suppurative changes in the sac, which, unless dealt with by operation, will in time lead to perforation of the vagina, rectum, or bladder, followed by discharge of fœtal remains. A possible event during the progress of an extra-peritoneal gestation is the occurrence of what Mr. Tait calls *secondary* rupture of the fœtal sac, whereby its contents may in whole or part pass into the peritoneal cavity, thus coming to constitute the condition known as *abdominal* pregnancy. The accident of *primary* intra-peritoneal rupture of a tubal or interstitial gestation is, according to Mr. Tait, all but uniformly fatal; primarily by hæmorrhage or secondarily by peritonitis, unless the damaged tube be early removed by abdominal section. Published statistics of such operations undoubtedly show that skilled interference does prove successful in a large proportion of these cases, not only by arresting loss of blood, but by averting future risks entailed by the patient's condition. At the same time, however, it is not always conclusively shown that the intra-peritoneal hæmorrhage, for which operation was undertaken, indubitably resulted from the rupture of a tubal gestation; and although the results claimed for operative interference are so brilliant as to commonly justify resort to abdominal section in cases of extensive intra-peritoneal hæmorrhage, presumably due to the condition in question, yet the want of absolute proof that such treatment offers the sole chance of recovery, should not be entirely lost sight of.

The differential *diagnosis* of advanced ectopic gestation—from uterine pregnancy with abnormal thinning of the wall and scanty secretion of amniotic fluid; from pregnancy complicated by the presence of uterine fibroids; or from gestation in one horn of a bifid uterus—usually demands nothing more than patience, since all these conditions not unfrequently terminate in natural delivery at term. The true nature of an extra-uterine fœtation, whether extra-peritoneal or abdominal, is most readily ascertained *before* the death of the child by auscultation of the fœtal heart. Pelvic examination reveals notable enlargement of the uterus, which is usually closely connected with the anterior aspect of the pelvic portion of the tumour, a notable sign being the patulous condition of the os. It is *subsequently* to the death of the fœtus that the condition usually presents the greatest difficulties in diagnosis. The patient's history then offers the chief points for guidance, such as gradual increase in size, followed in due course by symptoms of abortive labour with some uterine hæmorrhage, and by subsequent diminution in size, resulting from absorption of the liquor amnii.

Operative treatment, so long as the child is alive, may be deferred until the full term, in the hope of then saving both mother and child; or, in the event of the earlier death of the fœtus, it may and should be undertaken at any period of the presumed gestation in order to save the woman from the risks then entailed by her condition. Mr. Tait, in view of the probable fact of the extra-peritoneal development of the sac in the great majority of instances, urges the importance of a lateral incision on the side on which the gestation has presumably originated, in order to avoid, if possible, opening into the peritoneal cavity.[3] The usual rule with regard to the placenta is to leave it undisturbed, while bringing the cord outside and draining the fœtal sac. The disadvantages of the plan are those of a tedious and prolonged convalescence, exposing the patient to serious risk of blood poisoning during the gradual disintegration and removal of the necrosing placenta, and further to the possible danger of secondary hæmorrhage. Mr. Tait recommends the following as an alternative plan. After ligature and division of the cord close to its insertion, the placenta should be emptied as completely as possible of blood. The gestation sac is then thoroughly cleansed, and the sutures are carefully inserted, so that when they are drawn tight, the sac shall be hermetically closed. Its cavity is then flushed full by means of Mr. Tait's syphon trocar, which is not removed until all the sutures have been drawn tight, and the sac has been emptied as thoroughly as possible by reversing the syphon action of the tube. The trocar is then cautiously withdrawn, so as to avoid the entrance of any air, and the sutures are tied, thus hermetically sealing the sac. Should symptoms of mischief subsequently develop in the closed sac, it can be reopened and drained like an ordinary abscess. Subsequently to the death of the child, operative interference generally entails prolonged drainage, but occasionally the sac of an extra-peritoneal gestation may, when not too extensively adherent, be removed entire, after evacuation of its contents, by ligaturing its connexion with the broad ligament.

Treatment of obstructed labour.—The necessity for opera-

[3] See Hart and Carter's sections.

tive interference in cases involving risk of this nature may arise from narrowing of the maternal pelvis, due either to deformity or to the existence of solid tumours or uterine growths, which tend to obstruct the passage of the child's head. Under such circumstances resort to *craniotomy* was formerly the rule, entailing the destruction of the child and not unfrequently the subsequent death of the mother. The recent advances in abdominal surgery have led to the adoption of one or other of two operations in place of the treatment by craniotomy, and both of the procedures in question offer a chance of safety to both mother and child, while further ensuring against the recurrence of pregnancy. The first of these methods, known as *Porro's operation*, consists in the extraction of a child at full term from the gravid uterus by abdominal section; the uterus, with its retained placenta, being subsequently at once removed, together with its appendages, after constriction of the cervical portion by means of a serre-nœud wire. The later steps of the operation are identical with those involved by a non-complicated hysterectomy for fibro-myoma, and the whole procedure is one usually presenting no serious difficulty. The second method above alluded to is that known as the *Cæsarean section*, an old operation revived and perfected by Sänger. The following are the steps of the procedure:—1. An abdominal incision of sufficient extent to allow the uterus to be turned out of the abdominal cavity. 2. Closure by suture of the upper half of the incision in the parietes, and protection of the exposed portion of the peritoneal cavity by the insertion of sponges. 3. Application of an elastic ligature around the lower segment of the uterus. 4. Vertical incision of the anterior uterine wall in the middle line to the required extent. 5. Rupture of the protruding membranes, and extraction of the fœtus. 6. Insertion of a sponge into the lowest part of the uterine cavity, followed by sufficient tightening of the elastic ligature to control all hæmorrhage. 7. Removal of the placenta and membranes. 8. Antiseptic cleansing of the uterine cavity. 9. Insertion of deep sutures in the uterine wall, preferably of well-carbolised silk, avoiding the cavity. 10. Removal of the constricting elastic ligature and of the sponge previously placed in the lower segment of the uterus. 11. Thorough flushing of the uterine cavity from above down through the cervix with 1 in 2000 solution of corrosive sublimate. 12. Insertion of an iodoform bougie into the upper opening of the cervical canal. 13. Closure of the uterine incision by tying the deep sutures, and the subsequent insertion of superficial stitches to ensure accurate coaptation of the divided peritoneal edges. 14. Occlusion of both Fallopian tubes by ligature with carbolised silk. The choice between these two methods in any given instance will probably depend chiefly upon the predilections of the operator, and may well, I think, be left to him. The results obtained by either method, in skilled hands, are satisfactory in cases where the operation is performed at or near the full term of pregnancy.

The treatment of *tubercular peritonitis* by abdominal section, removal of the fluid, and closure without drainage, as a palliative, if not a curative, remedy in comparatively early stages of the disease is now a well-recognised procedure. The risk entailed by it is practically small, and the chance thus afforded of arresting what appears in some instances to be a purely local affection originally, fully justifies the adoption of such treatment in properly selected cases.

Resort to abdominal section in cases of *suppurative peritonitis* originating during the puerperium has, so far, not yielded satisfactory results, chiefly perhaps owing to the fact that the peritoneal mischief in such instances is usually secondary to suppurative metritis, which cannot be relieved by mere opening and draining of the peritoneal cavity. The suggestion, originating I believe with Mr. Tait, that under such circumstances the cleansing of the peritoneum should be supplemented by hysterectomy is one involving such risk to life that it may probably find but few supporters.

The treatment of *pelvic abscess* by abdominal incision and subsequent drainage of the suppurating cavity is a great improvement on the vaginal method of dealing with such cases. In most instances a carefully planned incision will enable the operator to expose the sac without invading the peritoneal cavity; but in any case great care must be observed in opening and evacuating the abscess in view of the possible risk of fouling the peritoneum, and the edges of the opening in the sac must be united by sutures to those of the abdominal incision. The most rapid and satisfactory results are naturally obtained when the abscess is opened prior to the establishment of any communication with the rectum or bladder; but, even after such an event, the treatment in question may be undertaken with good prospect of ultimate success.

The most recent advances in *surgery of the liver* have been in connexion with obstructive calculous diseases of the gall bladder, and in regard to the treatment of hepatic suppuration. But before briefly referring to these two most important subjects mention must be made of the treatment of *hydatid disease* of this organ. The plan formerly in vogue of dealing with cysts of this nature by repeated aspiration, followed by the injection of iodised solution—a most unsatisfactory and dangerous proceeding at best—has now been entirely replaced by the rational method of laparotomy, followed by incision, evacuation, and drainage of the cyst cavity. The performance of this operation in two stages, with a view to ensure against the escape of any cyst fluid into the peritoneal cavity, although commendable for its prudence, is by no means essential to success. With ordinary care the sac may be punctured, and subsequently incised, without any fouling of the peritoneum. After thorough evacuation, followed by digital exploration, with the object of detecting and opening any deeply placed secondary cysts, the sac should be united by suture to the margins of the abdominal incision, before being finally cleansed with a solution of iodine and subsequently drained.

The surgical treatment of *gall-stones* is a subject of much interest. The conditions usually demanding interference may be briefly summarised as due to calculous obstruction, partial or complete, of the cystic or the common duct, or of both together. The gall-bladder in such cases may be either considerably enlarged and distended with a mixture of bile and mucus, or it may be small and filled with gall-stones. The operation usually undertaken for the relief of symptoms caused by the above-named conditions is that known as *cholecystotomy*, consisting of exposure of the gall-bladder by abdominal section, followed by aspiration and incision of its cavity, which is then explored by the finger for the detection and removal of calculi from the ducts. This last-named procedure may be comparatively easy or extremely difficult, as in cases of firmly impacted stones deeply seated in the common bile-duct, which, again, may be so narrowed above the actual obstruction as to necessitate some amount of dilatation in order to effect removal of the latter. The plan of crushing the impacted stone with the help of properly padded forceps, or of breaking it up by the process known as "needling," may facilitate its extraction piecemeal, or in favourable instances it may be gradually manipulated onwards through the opening into the duodenum, and thus disposed of. Failing success by any of these methods, its removal by excision, followed by careful and accurate suture of the injured duct, might possibly be performed with success. After the removal of all obstruction, suture of the sac to the parietal peritoneum, and subsequent drainage of its cavity completes the operation, which, in the case of a distended gall-bladder, usually offers no serious difficulties, and is followed by excellent results. In dealing, however, with a small and friable sac which has been unavoidably much injured during the extraction of the calculi, the above procedure may prove exceedingly difficult, if not impossible. Under such circumstances, one of two courses may be followed, providing always that the patency of the ducts has been ensured. The first of these alternative measures consists in carefully suturing the opening in the gall-bladder, and returning it into the abdominal cavity. This plan was first carried out, I believe, by myself in 1883, but my patient unfortunately died. The procedure has latterly, however, been successfully effected by other operators, and its adoption in suitable instances is fully justified, providing that means for drainage of the peritoneal cavity in the immediate neighbourhood of the sutured gall-bladder be taken. The other course referred to is that of excision of the gall-bladder, commonly known as *cholecystectomy*. This operation has lately been performed with success in several instances, notably by Mr. Thornton, with excellent results. After thorough cleansing of the interior of the injured gall-bladder, the peritoneum covering its neck is cleanly incised, and the cystic duct is then freed from its connexions sufficiently to allow of its being ligatured and divided. Any

bleeding vessels are then tied, and the edges of the divided peritoneum are accurately united by suture over the ligatured duct, a glass drainage-tube being finally inserted before closing the abdominal incision. One other operation in this connexion is that known as *cholecystenterostomy*, consisting in the establishment of a permanent artificial communication between the gall-bladder and the intestine, preferably some portion of the duodenum, in cases of unrelievable closure of the common bile-duct. The procedure is a difficult one, and is but rarely justifiable, the need for its performance arising only under the most exceptional circumstances.

Limited abdominal *suppuration* resulting from rupture of a distended and inflamed gall-bladder requires treatment by free incision and drainage. Digital exploration of the abscess cavity for the detection of calculi should be avoided, owing to the risks thereby entailed of breaking through peritoneal adhesions.

The surgical treatment of *hepatic suppuration* in connexion with so-called tropical abscess has recently been discussed at length by Mr. Godlee. The varied experience which he has had in this connexion entitles him to speak with authority on the subject, which is one of very great interest, well worthy of discussion. Mr. Godlee's conclusions may be shortly summarised as follows: Pyæmic abscesses and those resulting from suppurating phlebitis of the portal vein are from their nature not amenable to curative surgical procedures; and the same applies to some extent to multiple abscesses associated with dysenteric ulceration of the bowels. Single abscesses, whether or not of tropical origin, should, when superficial, be opened and drained with full antiseptic precautions, preferably *after* the formation of adhesions to the abdominal parietes. Preliminary puncture as a means of diagnosis should, as a rule, be adopted only after the abdomen has been opened, before proceeding to incision. Rupture of liver abscess into the abdominal cavity must be dealt with promptly on general surgical principles.

The advances made during the past ten years in the surgical treatment of *diseases of the kidney* at least equal, if they do not surpass, those recorded in any other branch of abdominal work. The most recent and most valuable contribution to this subject, considered in all its branches, has been made by our President in the lectures delivered this winter before the Harveian Society of London. Only a very brief reference to some of the chief points in connexion with the operative treatment of certain of the more common affections of the kidney is here possible, but the whole subject in question is worthy of the fullest discussion.

The advantages offered by the procedure known as *nephrorraphé*—for the fixation of a painful movable kidney—are not, I believe, unanimously agreed upon. The operation, however, when performed apart from that of lumbar nephrotomy is practically devoid of risk; and it undoubtedly may afford marked relief, when all other means for maintaining the kidney in place have been tried and failed. It is possible that occasional want of success may depend upon variations in the exact means employed by different operators for fixing the organ.

The treatment of *unilateral acquired hydronephrosis* by repeated aspiration through the loin has been advocated as curative; and it may, occasionally, perhaps, by good fortune prove so. But in most instances the persistence of the obstruction will necessitate the employment of more radical measures for the cure of the disease—viz., either nephrotomy or nephrectomy. The former of these procedures may possibly result in the discovery and removal of an obstructing calculus, and thus prove a success; but failing this, it has the disadvantage of entailing the discomforts of a permanent urinary fistula. The alternative operation of removal of the disorganised kidney has been advocated as the proper treatment in all such cases, not improving after one or two loin aspirations; and this, I believe, to be the proper course to advise.

The management of cases of *stone in the kidney* giving rise to symptoms requiring surgical interference covers a very large field for inquiry and discussion. The variety of such calculous formations, and of the diseased conditions which they entail, is only equalled by that of the questions involved in their diagnosis and treatment. The earlier symptoms of renal calculus, such as loin pain, tenderness on pressure, occasional slight hæmaturia, &c., are not unfrequently masked to a very considerable extent by various reflex digestive disturbances; and even when well defined, they may all exist, not only apart from the presence of any calculus, but further, without the existence of any appreciable renal change recognisable by skilled digital examination of the interior of the kidney through a loin incision. Or, again, such symptoms when due to actual calculus may be sympathetically transferred from the diseased organ to its healthy fellow—a possibility of most serious import with regard to operative treatment. Finally, they may be caused by early tuberculous or malignant disease. These facts, taken in connexion with the numerous instances recorded of operations for the removal of renal calculus which have ended in disappointment, point strongly to the need for more accurate means of ascertaining, in any given case,—first, that a stone exists, and secondly, in which kidney it is located, before undertaking actual steps for its removal. Such means for accurate diagnosis are available in most instances, by the plan advocated and practised so successfully by Mr. Thornton, of exploration through the abdominal cavity as a preliminary to the performance of nephro-lithotomy by the loin incision; and this course is, I believe, the right one to follow.

Tubercular disease of the kidney, as a primary unilateral affection commencing in the pelvic portion, is now becoming recognised, and its early treatment by lumbar incision and drainage is occasionally advocated and carried out with successful result. The differential diagnosis from calculus is often extremely difficult, both diseases in their earlier stages being marked by very similar symptoms. In the later stages of advanced suppuration, the *scrofulous* kidney is marked by the more constant presence of pus in the urine, and by the frequent persistence of hæmorrhage while the patient is at rest; *calculous pyelitis*, on the other hand, being characterised more commonly by intermittent discharge of pus, and by the occurrence of hæmaturia, chiefly during the daytime, after exertion of any kind.

The two most important varieties of *new growth* in connexion with the kidney are the sarcomata and the true cancers, both of which are characterised by solid tumours which may require extirpation.

The *sarcomata* are most commonly met with in young children, as very rapidly growing tumours, of active malignancy, usually associated with extensive secondary deposits. They should not be interfered with, as removal of the kidney is invariably followed by rapid and fatal recurrence. In adults, on the other hand, sarcomatous disease, usually originating in the renal capsule, is of essentially slow growth, often showing little if any tendency to invade the kidney substance proper, and hence giving rise to few symptoms beyond those due to the presence of a tumour. Extirpation in such cases offers a fair prospect of complete recovery if undertaken early enough.

Primary carcinoma of the kidney is most commonly encephaloid, although scirrhus and colloid cancer may be met with. Apart from heredity, it occasionally appears to originate in connexion with long-continued calculous irritation, or possibly as the result of injury. The early symptoms are those of a kidney tumour, more sensitive to pressure than is the case in sarcomatous disease, accompanied by pain and hæmaturia. Removal of the kidney at this stage of the disease, before it becomes fixed by extension of the growth, may prove successful in prolonging life, and is therefore worthy of being considered.

The surgical procedures in connexion with kidney diseases may be summarised as follows:—

1. *Puncture through the loin* with the aspirator needle: (*a*) for decision as to the fluid or solid nature of a doubtful growth; (*b*) for the definite localisation of the seat of a renal or peri-renal abscess, as a preliminary to free incision; (*c*) for the relief of painful distension, whether due to pus or to urine, pending the performance of nephrotomy; (*d*) for the tentative cure of hydronephrosis.

2. *Nephrotomy* by lumbar incision, followed by drainage: (*a*) in cases of simple cyst, hydatids, and abscess of the kidney; (*b*) in cases of hydronephrosis presumably due to impaction of a calculus low down in the ureter, as a preliminary to the removal of such obstruction by extra-peritoneal ureterotomy; (*c*) in the early stage of unilateral tubercular disease; (*d*) in cases of traumatic pyonephrosis or pyelitis.

3. *Nephro-lithotomy.*—The removal of stone from the

kidney by means of a lumbar incision, preferably preceded by abdominal exploration to ensure accuracy of diagnosis, and followed by drainage of the loin wound.

4. *Nephrectomy* or enucleation and removal of the kidney may be required for new growth; or on account of suppurative disorganisation due to advanced tuberculous or calculous disease; or, finally, for long-standing hydro- or pyo-nephrosis.

The frequent discussions as to the comparative value of the lumbar and the abdominal incision, which have taken place of late years, have not as yet finally settled the question; but personally I have no hesitation, as the result of my own experience and observation in this direction, in pronouncing for the relative superiority of the abdominal operation, which has been so ably and consistently advocated by our President. The advantages, in my opinion, justly claimed for it consist in the facilities afforded for the examination of both kidneys and of their respective ureters; in the possibility by its means of dealing with solid tumours of large size; and finally, in the ready avoidance of injury to pleura, bowel, or to peritoneum (in this latter case by fouling or otherwise), all accidents liable to occur without the surgeon's knowledge during a loin operation.

The objections to the last-named procedure, apart from the first two above inferred, depend chiefly on the fact that the operator must of necessity, in great measure, be solely guided by his sense of touch in manipulations of a nature usually requiring all the accuracy ensured by clear vision and good light for their successful performance.

Surgery of the spleen.—Partial or complete removal of an injured but otherwise healthy spleen is usually a successful procedure, providing that no other serious traumatic complications be present.

Splenectomy, or extirpation of this organ in cases of so-called wandering spleen, of simple cystic, or of hydatid disease, and of sarcoma, shows a mortality of 17 to 18 per cent. On the other hand, the results up till now recorded of operations undertaken in cases of hypertrophy, whether simple or of malarial origin, are as yet altogether prohibitive of surgical interference in such conditions; and the same applies with still greater force to the consequences of splenectomy in instances of leukæmic enlargement of this organ.

It is to be hoped, however, that, with advancing knowledge and increasing practical experience in dealing with the pedicle, far better results than those above referred to may in the future be attained in this branch of abdominal work; and this more especially in view of the fact that removal of an injured or moderately diseased spleen is not necessarily followed by impairment of the general health.

Surgery of the pancreas.—Premeditated radical operations on the pancreas have so far been rarely attempted, in consequence of its deep-seated position and its close and varied connexions with other important abdominal structures. Its removal by extirpation has up till now proved all but invariably fatal. On the other hand, treatment of simple or hydatid cysts, and of suppuration in connexion with this organ, by free incision, followed by suture of the sac to the abdominal wall and drainage of its cavity, appears to have yielded excellent results.

In here bringing to a close this necessarily imperfect review of the present position of abdominal surgery, it only remains for me, in conclusion, first, to offer my thanks to those who have honoured me by their presence here this evening; and secondly, to express my hope that the consideration here given to this extensive and most important subject may be found to furnish material for a debate, worthy alike of our ancient Society and of the world-wide reputation of British surgery.

THE INFIRMARY, LEICESTER.—The 117th annual report, just issued, shows that the demand on the infirmary enlarges with the increase of population. It is stated that owing to an appreciable decrease in the number of fever cases during the past year it had not been necessary, as authorised, to make a weekly charge for fever patients. Reference is made to the auspicious opening in May of the Children's Hospital by the Princess Louise. Donations have been received for this branch of the work to the amount of upwards of £10,000, of which £8000 have been expended on the building and complete equipment of the new hospital, and £2000 invested as an endowment fund for its support.

ABSTRACT OF THE

Gulstonian Lectures

ON

SOME CEREBRAL LESIONS.

Delivered at the Royal College of Physicians,

BY G. NEWTON PITT, M.A., M.D., F.R.C.P.

LECTURE II.

MENINGITIS AND TUBERCLE SECONDARY TO EAR DISEASE; CEREBRAL ABSCESS AND SINUS THROMBOSIS DUE TO OTHER CAUSES THAN EAR DISEASE.

IN patients under ten, meningitis is the most fatal complication of ear diseases, and the younger the patient the more frequently does meningitis occur. It was almost always secondary to some other complication, such as pus outside the dura mater on either the anterior or posterior surface of the petrous bone, a sloughing condition of the dura mater, perforation of the dura by an extra-dural abscess, thrombosis of the lateral sinus or of a dura-matral vein, cerebral abscess reaching the surface or bursting into the lateral ventricle, fracture of an abnormally thin petrous bone, or the passage of pus along the internal auditory meatus from the ear. In this latter group of cases the exact course which the pus took inside the bone was not made out definitely. Whereas cerebral abscess only ensues in cases of old ear disease, meningitis may come on within two days of the onset of otorrhœa, and is the probable lesion, when there is a complication in the early days of ear trouble. The symptoms which are recorded in twenty-three cases may be grouped as follows:—

The onset of the symptoms was sudden, and the temperature raised; in some towards the end it was very high. Headache was generally present, though not of extreme severity; earache, in addition, was noted in some. In the majority the patient was lethargic or listless, and often drifted into a state of coma at the end. Vomiting and extreme restlessness were also noted. Optic neuritis was very rare; in only one instance was it due to the meningitis. The reason of this is not far to seek. Five or six days must elapse before the neuritis develops, and still longer when the meningitis is limited to the posterior fossa; but 40 per cent. of the cases of meningitis are fatal in less than that time. In a third of the patients the neck was held retracted, and in about the same proportion there were symptoms of motor disturbance, such as tremors, paresis, or convulsions. As occasional symptoms, aphasia, agraphia, impairment of memory, emaciation, and a slow pulse were noted. The rapid course of the disease and its association with other lesions often render it difficult to arrive at a diagnosis before the patient is dying. It does not seem probable that surgical interference, when meningitis has once thoroughly developed, will ever be of any use; but it is clear that at an earlier stage the lesions which precede the meningitis in almost all cases are such as are capable of treatment by free drainage, which may sometimes be successful. In cases of ear disease in which there are severe local symptoms, a fatal termination may, I would suggest, often be prevented by earlier operation than has hitherto been the recognised expedient.

There is some evidence that otitis media, when of a tubercular nature, may be the means of infecting the brain with tubercular instead of with simple inflammatory products. I cannot offer a conclusive proof of this, but I have met with four cases which may be interpreted in this way. In the first there was a large tubercular mass in the cerebellum which was adherent to the posterior surface of the carious temporal bone, the interior of which was affected with caries, most probably tubercular. In the second case, the tubercular meningitis was most marked in the region of the left Sylvian fissure, near the ear disease. There were tubercles in the liver and spleen, but the only chronic tubercular source appeared to be the carious left temporal bone. In the third case, there were no tubercular sources found, except the chronic ear

disease. And in the last case, the mastoid cells were carious, and there had been an abscess behind the left ear for three weeks; the mischief in the brain was almost entirely limited to the region of the left Sylvian fissure and the adjacent convolutions. Here there were numerous tubercles, and the middle cerebral artery had become blocked, so that there was softening, together with extensive hæmorrhage. Possibly other cases of a general tubercular meningitis, where there has also been otorrhœa, may have owned this as their source. It is certainly not a common centre of infection, but I would suggest that it is so occasionally.

The following general conclusions may be drawn from the whole series of cases of fatal complications of ear disease. Cerebral abscesses occur rather less frequently than meningitis or thrombosis. In two-thirds of the cases the abscesses occur close to the roof of the tympanum; when found elsewhere there is usually thrombosis or some other complication. Agonising headache usually indicates abscess; rigors, thrombosis of a sinus; and pyrexia, either thrombosis or meningitis.

Optic neuritis was most frequently found with thrombosis of a lateral sinus. Recent otorrhœa may set up meningitis, whereas abscess only occurs in chronic cases. The more insidious the onset, the greater the probability that the complication is an abscess. Abscess and sinus thrombosis, with their associated diseased dura mater, are frequently unaccompanied by other lesions. Such cases are therefore suitable for surgical interference, with a prospect of some success, if undertaken early. Meningitis is secondary to other lesions, and, unless very local, is beyond treatment.

The two groups of cases which I discussed in the last lecture were cerebral abscesses and thrombosis of the sinuses secondary to ear disease. I now propose to examine the remaining cases of these lesions which have occurred from other causes during the same period. I have collected fifty-six cases of cerebral abscess from our records between the years 1869 and 1888, and although the conclusions to be drawn from them do not differ materially from those generally accepted, yet a continuous series of fatal cases of such a rare lesion contain much that is worthy of being put on record. The cases due to ear disease were eighteen, to cranial lesions seventeen, to pyæmia nine, to lung disease eight, while there were four of indeterminate orgin. Cerebral abscesses occur much more frequently in men than in women, in the proportion of four to one. This is explicable in the cases due to pyæmia and to injuries, but the series throws no light on the cause of the great preponderance which is found in the cases of ear disease, in the remaining cranial lesions, and in lung affections. Half of all the cases occurred between the ages of ten and thirty, and injury is the most common cause before the age of ten. In two boys aged six and twelve acute periostitis set up general pyæmia and cerebral suppuration. This is very unusual, for in none of the cases Gowers collected had pyæmia caused a cerebral abscess in any one under twenty. I have already in my first lecture discussed the eighteen cases in which the abscess had originated from disease of the ear, and I will now deal with the seventeen which were secondary to disease of or injury to the cranium; of these, ten were due to injury and seven to local disease. In nine of the traumatic cases there was fracture of the vertex of the skull. In several the fracture was a depressed one: trephining was performed six times, and in every case there was inflammation of the bone. All the fractures were compound, and in some fragments of bone, brick, &c., required removal from the injured brain. None of the abscesses had originated from uncomplicated bruising of the brain, which some authors have occasionally reported. In such cases it is most probable that there was an unrecognised fracture of the base of the skull by which infection was conveyed.

Injuries of the aural, ocular, or nasal cavities may be overlooked very readily, and may furnish an explanation of the source of those abscesses which are looked upon as idiopathic. Meningitis was present in six of the cases as a complication, having usually spread from the seat of inflammation. The abscesses were all seated beneath the injured spot, and were in the occipital region once, in the temporal twice, and in all the others in the frontal lobes. The onset of the symptoms was always more or less vague and insidious; often the wound was suppurating more than it had done previously, and did not look healthy. Headache was frequent, also convulsions, vomiting, and drowsiness; often there was restlessness at night. Pyrexia, when present, was due rather to the condition of the wound than to the abscess. Half the patients became comatose at the end, but optic neuritis was only noticed once. Except in two instances, the abscesses were solitary. The symptoms closely resemble those of meningitis, but differ mainly in the fact that they do not come on till about the second week, or later, after an injury, and the course is not so rapid as that of meningitis. Death was due either to the abscess directly or to rupture into the ventricle, meningitis or pyæmia, and it usually occurred within a fortnight after the injury. On three occasions drainage was adopted, but a fatal result was not thereby prevented, death occurring in two of them from meningitis, which is almost certain to ensue when there are no adhesions of the meningits around the injured spot. Of the seven cases due to local disease three were due to periostitis, one to congenital frontal tumour, two to malignant disease, and one to nasal polypus. In the latter instance the growth had absorbed the ethmoidal roof, and was pushing against the dura mater, setting up a frontal abscess.

There were nine cases due to pyæmia; these had originated with periostitis twice, with dysentery twice, with stricture, thrombosis of the prostatic sinuses, cellulitis of the arm, purpura, and ulcerative endocarditis each once. There can be little doubt that in these cases the abscesses are due to emboli which come from the various sources of infection. Yet it is but rarely that this can be proved. There was more than one abscess six times, and in three they were numerous. The white matter is much more often affected than the grey, hence the symptoms are vague and convulsions rare, while in the traumatic cases they are frequent. The cerebellum is more often affected than any other part of the brain; the explanation may be found in the fact that a minute embolus passing along the vertebral arteries will probably lodge in the cerebellum, while one in the internal carotid may lodge in any part of the cerebrum and is equally common in all parts.

Primâ facie, it would have appeared very probable that cerebral embolism, due to malignant endocarditis, would often be followed by suppuration, as this is often the sequence of such emboli in other organs; but only one such instance can be found out of seventy-eight fatal cases of cerebral embolism which have occurred during the last twenty years. In only one instance, also, could heart disease be suggested as the source of cerebral abscess.

In eight cases the source of the abscess could be traced to the lung; in three, the lesion was empyema; in two, dilated bronchial tubes with chronic pneumonia; in two, a gangrenous cavity; and in one, extensive scarring of the bronchi. The abscesses were multiple in every case except one, in four being limited to one side of the brain. The centrum ovale was the part most frequently affected. The duration of the symptoms varied greatly, from a few days to ten months. In most of the patients no exciting cause for the onset of the infection could be traced; in the majority, an ulcerating surface was found in the lung. The situation of the abscesses varied so much that there were but few symptoms common to the series; the most important were a lethargic condition, headache, convulsions, coma, vomiting, and hemiplegia. The abscess had in most of the cases been the determining cause of death.

An abscess an inch in diameter can form within a week and will have no definite walls. Several older abscesses were also without a definite capsule, and we should therefore not be justified in assuming that an abscess without a well-marked capsule must be acute. The more foul abscesses had usually ragged walls. A capsule can be well formed at the end of a month. In one case of eleven weeks' duration the wall was so thick that it was removed complete from the brain substance in which it lay. It was over a sixth of an inch thick, and showed on microscopical examination an inner layer of granulation tissue, then a layer of very elongated spindle cells, which were organising into fibrous tissue. There were numerous bundles of fibres arranged in parallel layers, and well supplied with capillaries; outside this the tissue was infiltrated with small cells.

The conclusions to be drawn from the whole series of abscesses are as follows: Headache is more severe in the cases due to ear disease than in those due to other causes. In the cases secondary to cranial lesions the symptoms resemble those of meningitis, but they come on in the second week or later after an injury, and are less acute in their course. Such abscesses are cortical, chiefly in the frontal lobes, and often give rise to motor disturbances. Abscesses

due to pyæmia and to lung lesions are usually multiple; they occur in the white matter of the brain, and not infrequently in the cerebellum, the symptoms being often obscure, and the lesion remaining unsuspected during life.

An analysis of forty-four cases of sinus thrombosis yielded the following results. It occurs under two conditions—either primarily, with a feeble cerebral circulation, associated with exhausting complaints; or secondarily, in connexion with adjacent disease. In primary thrombosis, owing to the stagnation of the circulation, clot tends to form in the sinuses, to become adherent, and seldom infects the blood or gives rise to emboli. During the last twenty years I find that we have had eight cases, five occurring in adults (three of whom were women) and three in infants. In the adults the causes were chronic Bright's disease, phthisis, fæcal fistula, and old syphilitic stricture of the rectum; in the infants, the thrombosis was secondary to empyema, suppurative pericarditis, and a scald. Thrombosis started in the longitudinal sinus five times, spreading into the cerebral veins in four and into the lateral sinus three times. In two other instances the thrombus was limited to the lateral sinus and in one to a cerebral vein. In most of the cases in which thrombosis occurs in a vein it is probably preceded by clotting in a sinus. In three of the five cases of venous thrombosis there was ecchymosis of the cortex corresponding to the blocked veins, and in one instance there was a deposit of ochreous pigment; in the remaining case the patient probably died soon after the clotting had taken place. In one remarkable case the clotting extended into the right auricle down the jugular vein and superior cava, setting up pulmonary embolism and gangrene of the lung. In the majority of the cases there were no symptoms due to the thrombosis, the patients dying simply from exhaustion, and this absence of symptoms makes it in most cases impossible to determine the age of the thrombus; in two it had certainly lasted a month, and in one a week.

Secondary thrombosis occurred thirty-eight times. Of these, twenty-two were due to ear disease, and the infection had spread from the posterior wall of the petrous bone in nine, the dura mater being inflamed, sloughing, or suppurating. In four the clotting spread to the longitudinal sinus, and in eleven to the internal jugular vein. Three-quarters of the patients died with pulmonary pyæmia, which the breaking-down thrombus had set up. Of the fourteen remaining cases, seven were traumatic, once the bone was exposed and inflamed, and in six there was a fracture. Three of these latter were compound, and in four the fracture ran across the sinus, which was lacerated in two. Of the remaining seven, three had spread from malignant pustules or carbuncles on the face, two from an adjacent pachymeningitis, one from compression by a growth, and only one from a distant source—viz., from pyæmia set up by a carbuncle on the back. The clot was found in the longitudinal sinus in three, in the lateral in nine, and in the cavernous in three, spreading from the facial and ophthalmic veins. Once the clot had extended into the circular and into the inferior petrosal sinuses, and only once into a cerebral vein. The patients were all males, ten being between the ages of thirty and sixty, while the youngest was seven. Three times meningitis was set up, and six times pyæmic abscesses in the lung. The condition of the clot varied greatly; in eight it was suppurating, in four comparatively recent, and in two (associated with pachymeningitis) it was firm and well organised. In the majority of the cases the symptoms were mainly those of pyæmia, associated in some with physical signs of disease in the lung. In two of the cases in which the fracture ran across the groove for the lateral sinus, extreme difficulty in respiration came on at the end of two weeks, and rapidly proved fatal. Thrombosis had taken place in the outer part of the sinus, and had spread downwards to the foramen lacerum jugulare. Probably the consequent distension at this spot had led to pressure on the vagus, and thus to the urgent respiratory symptoms. Of the cases of pachymeningitis, the one had intense headaches, worse the last three months of life, and ending in coma, and the other epileptiform convulsions; but it was not possible to determine to what extent these symptoms were due to the thrombosis. In two instances the optic discs were noted to be swollen.

The cases which could have possibly been diagnosed during life were those in which the clotting had spread from inflammation on the face, and from the ear and some of the fractures of the base of the skull; but in more than half of the total series this was not possible.

THE INFECTION OF EPIDEMIC INFLUENZA.

BY WILLIAM SQUIRE, M.D., F.R.C.P.,
PHYSICIAN TO THE ST. GEORGE'S (HANOVER-SQUARE) DISPENSARY.

THE present epidemic of influenza affords abundant evidence for comparison with accounts of past epidemics under various aspects that need full consideration. The subject of the present inquiry is approached from two sides:—First, of infection as an epidemic agent; and second, of its more limited action in communicating the disease from person to person, for it will be generally conceded that, for influenza, this is not the main or only means of conveyance, as in some other diseases, like small-pox, that become epidemic. Whatever the general conditions or "influences" concerned in the reappearance of the disease amongst us, a something to be influenced—a germ or agent—is presupposed. As stated twenty-five years ago by Dr. Parkes, "there must be a continual reproduction of the agent to a greater or less extent in different places. Now, this reproduction must either be in the air or in the bodies of the sick, in which latter case the agent would be a true contagion."[1] In some specific fevers both modes of increase are possible, as in remittents which are not infectious, and in cholera and influenza which are, though in a different manner from the directly contagious maladies; but in all cases the process is a vital one, and the laws determining the reproduction and distribution of infection are to be explained on biological and not on physical principles. Probably no scientific inquiry has been so much hindered by the misapplied analogies of vague terms as this one on the spread of epidemic diseases; whether the analogy be drawn from animate or inanimate nature, whether the advance of an epidemic be compared to insects in the air, to swarms of locusts, or the advance of armies on the one side, or to clouds or waves or masses of propelled matter on the other, the assumption that the invading material has all come from without vitiates the whole conception, and leads to conjectures that the infecting particles have been propelled over thousands of miles, have travelled with or against the wind, have been deflected or divided in their course, while the really essential condition of continual reproduction in the community attacked is lost sight of or ignored. Each class of analogy has led to errors of its own; the animate to various guesses of hybridity, to the straw-fungus theory and the like; the physical to neglect of what, for a passing purpose, was called "the first droppings of the thunder shower," to the westerly progress of epidemics and to other opinions less directly calculated to impede prevention; for a false view of the nature of any special infective disease leads to error and uncertainty in our methods of prophylaxis.

The very limited or doubtful quality of infection shown by the earlier cases of influenza noted among us before last December distinguished them from what had been observed in previous epidemics and from what has since occurred; yet these cases are evidence that the disease itself had again been roused into activity, and had their part in the evolution of the epidemic. So it was in most of the capitals of Europe; no sooner had a telegram announced the absence of this epidemic than we heard of its attacking the postmen, the railway servants, or the barracks. The attacks at a given time were too numerous to be attributable to direct personal infection, and mostly at such an interval from the earlier cases as to favour the idea of an active local reproduction of the specific germ, either in the air or in aqueous or other air-borne particles of the place. The earlier winter of North-eastern Europe and its sudden changes, together with less known conditions of wider scope, may have determined the first epidemic manifestations of an old scourge in that quarter, but a renewed energy of the same specific kind was at the same time observable over half our hemisphere: too large an extent for any theory of conveyance to explain. Nor is the account of the advance of the epidemic in Russia explained satisfactorily on any such hypothesis. The earliest record of the presence of influenza as lately brought from Russia by Dr. Clemow is from Tomsk on Oct. 17th; we have an account of it as epidemic from Kolomna, south of Moscow, and from Wassili-Ostrow

[1] Reynolds's System of Medicine, vol. i.

at the same time. It was at Viatka, in the north-east of Russia, on Nov. 13th, and before that in both St. Petersburg and Cronstadt.

That the infection in these early outbreaks was reproduced in great measure external to the living body, and to a certain extent air-borne, is evident from its mode of action; and the disease to which it gives rise is like other malarial infections, in that one attack is not protective against a recurrence, as is the case with most of the directly infectious diseases, whose germ is only reproduced in the bodies of the sick. Herein is one of the great differences observed in the incidence of influenza as compared with such infections as scarlet fever or measles. In the first of these two, men are less liable to suffer than children, even if they are not protected by a second attack, and are less exposed than women to an infection chiefly limited to the sick room; in measles an additional reason to these for the immunity of adults is the rarity of second attacks. We can hardly estimate the full effect of those differences in giving a distinctive character to the epidemic. Another cause of difference is that where infection is not limited to the sick person and room, but may be and evidently is largely diffused externally, those most from home, especially when fatigued by overwork, are most likely to suffer. That women and children have no immunity from influenza was lately shown in the Lambeth Girls' School, and this is daily seen in families, where the youngest are not exempt, and where very persistent ill effects are observed during rapid growth and development in youth, as well as in the various defects of age. The incidence of influenza among families has not always nor often been observed as the direct result of the introduction of a sufferer; it has sometimes seemed to follow from the reception of a visitor from an infected district, and then it does not always spread. The infective agent of influenza is also capable of being reproduced in the bodies of the sick, and may there undergo some changes that alter its effects in some way, and perhaps increase if they do not confer upon it the power of direct infection. Thus the later cases may have fewer relapses, or more often have catarrhal symptoms, and be more infectious than the first. Some animals, chiefly those that are housed, as cats and stabled horses, seem to be peculiarly susceptible to the earlier epidemic agencies; and this is so far modified in horses that they largely communicate infection to other horses but not to the men who look after them, nor is there any evidence of a more widely diffused prevalence of influenza in the districts around affected stables. As a part of this subject, it may be remarked that where in the present epidemic an early appearance of influenza has been noted the disease is there of old standing and the germ already existing ready to be raised into new activity, while in the later extensions to Egypt and India the germ has been conveyed in the course of traffic, and the disease appeared at the intervals necessary to such means of transit. In all cases not only are favouring external conditions required, which seem only to come together at long and uncertain intervals, but a certain density of population is necessary towards carrying on the epidemic torch; for in isolated places and sparse populations only endemic outbursts of no long duration or large extension are to be expected. Since Christmas an isolated outbreak of influenza in villages of central Norfolk, near Watton, have come to my knowledge, while most of the recent extensions in this country follow upon communication with other parts already affected. A letter from Bombay dated March 7th informs me that influenza with pains all over, fever, and cough, has reached there; but that old residents call it dengue. It is reported to have begun towards the end of February, attacking a good many people, especially natives, with fever and cough. Much is said of influenza resembling dengue in some of its symptoms; but the pains and stiff neck of dengue follow the fever which has a characteristic rash.

As to the second part of my subject, direct personal infection is certainly possible for influenza. Where this has occurred the incubation is short, and seldom more than two or three days. A longer period would point to an introduction of infective particles that had developed in the house to which they had been introduced. In some instances where all the members of a family have been affected, sanitary defects have existed. Once house communication with an unventilated cesspool was found. Direct infection in this disease is probably always aerial; at least there is no evidence clearly incriminating the water-supply as a means of conveyance; but in this, as in many other directly infectious air-borne particles, we have to consider the distance through which it can act; for influenza, as for whooping-cough, this is most likely very limited, the particle must be carried somehow to the place where it is to develop. The great difference between a partly miasmal and a purely contagious disease has always to be remembered, and the possibility in the former case of the germ already being present to be considered; this possibility excluded, the rumours of ships having sailed into an infected atmosphere at sea are fanciful. How small is the infecting distance for influenza is indicated by the Brest training ships, when influenza having been introduced into one on Dec. 15th, attacking 250 persons, two other training ships lying quite near had not a single case. That children have often escaped in a family where the father has been ill with influenza is against any very active direct personal infection. That letters might be a means of conveying infective particles is of course possible; the instances in which such conveyance has been supposed to have happened are at best but inconclusive. The number of postmen and railway porters in London attacked may better be explained by their extra work and long hours of exposure at the Christmas season than by infection conveyed by means of letters or parcels. In one large post office it was found that the telegraph boys and not the letter sorters were the first to be attacked. Doctors, it is true, often suffered, but the extra work thrown upon them during the epidemic had as much or more to do with this than direct infection from their patients. One point to be considered is mentioned by Dr. Sykes in his valuable report on influenza in St. Pancras—viz., that the more highly infectious a disease is, and the shorter the incubation period, the more difficult is it to discriminate between direct and atmospheric infection. This must remain one of the uncertainties of the epidemic. We cannot ascribe a long incubation to the atmospheric or malarial infection, and a short incubation to the cases from direct infection; for in the instances where a ship's crew were infected on arriving at an infected port, or on taking the pilot on board, the interval was a short one. The balance seems rather to be against direct personal infection as a frequent or potent cause of the spread of influenza, but sufficiently possible to enforce a caution against introducing a doubtful visitor amongst the weakly or infirm.

Harley-street, W.

ON ACUTE INTESTINAL OBSTRUCTION AND ITS TREATMENT BY ABDOMINAL SECTION, WITH ILLUSTRATIVE CASES.

BY JORDAN LLOYD, M.B., F.R.C.S.,
SURGEON TO QUEEN'S HOSPITAL AND TO THE CHILDREN'S HOSPITAL, AND VISITING SURGEON TO THE WORKHOUSE INFIRMARY, BIRMINGHAM.

(Concluded from page 796.)

CASE 5. *Acute intestinal obstruction; cæcostomy, with recovery; prolapsus intestini through artificial anus; cured.*—Jane B——, aged fifty-four, was sent to me by my friend, Mr. Hugh Thomas, as a case of intestinal obstruction, and was admitted into Queen's Hospital on September 13th, 1888. She was fairly nourished, and had always enjoyed good health, except for constipation during latter years, and occasional slight pain in the abdomen during the past five or six weeks. Ten days since she was seized with more severe griping paroxysmal pain in the abdomen, and had to take to her bed. The abdomen was distended, and no motion was passed. Six days later vomiting began, and has continued occasionally. Treatment by enemata, local warmth, and belladonna have failed to relieve. On admission she had an anxious, pinched expression, with chilly extremities; pulse quick and thready; tongue thick, with creamy fur; abdomen distended, tense, and resonant everywhere. Constant pain referred to the neighbourhood of the umbilicus, with occasional exacerbations; vomiting fæcal; constipation complete for twelve days. Chloroform and ether mixture having been administered, the abdomen was opened by a two-inch median incision between the umbilicus and pubes. An enormously distended cæcum presented at the wound, and after the sigmoid had been examined and found empty, the enlarged cæcum was secured

to the skin edges and opened. A quantity of liquid fæces and dark-coloured, bloody fluid escaped. The pain and vomiting disappeared at once, and a small, hard stool was voided per rectum on the sixth day. Nothing more passed from the rectum up to the time of her death, eight months later. Four weeks after the operation she was up and about the ward, feeling pretty well, and passing the whole of her fæces through the artificial anus. After getting into bed one night she complained of considerable pain in the abdomen, and on coming to examine the opening it was found that a large coil of bowel had made its way by the side of the artificial anus, and lay like a dark crimson mass on the abdominal wall. I was out of town at the time, and my colleague, Mr. Morrison, successfully dealt with the complication. She recovered from the effects of this accident, and left the hospital on Nov. 17th, with an efficient artificial anus.

Remarks.—This case was one of acute symptoms supervening on a chronic obstruction, the obstruction being undoubtedly malignant, and situated probably in the neighbourhood of the hepatic flexure of the colon. It could not be felt at the time of the operation, but the permanent occlusion which followed, together with the characteristic cachexia, both point in this direction. The accidental escape of a knuckle of bowel by the side of an artificial opening has been often recorded, and calls for prompt and careful treatment.

CASE 6. *Acute intestinal obstruction; abdominal section; inter-intestinal abscess; old adhesions; abscess evacuated; recovery; relapse; second abscess opened; cured.* — Sarah C——, aged forty-three years, was placed under my care in Queen's Hospital on Dec. 4th, 1888, by Dr. Notley of Small Heath. She had been complaining for ten or twelve days of pain, chiefly referred to the bottom of her back. Three days ago she began to vomit, had severe paroxysmal abdominal pain, and was constipated. She had suffered from a prolapsed uterus for twenty-two years, had several children, and many attacks of "inflammation of the bowels." On admission her expression was anxious; extremities cold; pinched and livid; pulse 100, small and compressible; tongue brown and furred; great prostration; abdomen distended; intestinal coils visible through the walls; tumour the size of a fist, palpable in left iliac region; acute paroxysmal pain referred chiefly about the umbilicus; vomiting fæcal and frequent; constipation absolute for five days. Chloroform and ether mixture was the anæsthetic. The abdomen was opened by the usual incision, and the great omentum presented itself in the wound. It could not be drawn upwards out of the way, being tightly fixed along its lower border, somewhere down in the true pelvis. A hard swelling felt behind it was punctured with a trocar and twenty ounces of thick yellow pus withdrawn. The opening in the omentum was enlarged slightly, and was then stitched up to the skin edges. The abscess cavity was inter-intestinal, its walls being formed above and behind by matted intestinal coils, and in front by the thickened great omentum. The uterus and ovaries could not be recognised. A large drainage-tube was secured in the cavity, and twelve hours later the bowels relieved themselves, and there was neither vomiting nor pain. Seven days later, however, pain and vomiting again set in, and on examining the interior of the still open cavity, with a finger a resistant swelling was felt in its deepest part. This was punctured with a needle, found to contain pus, was opened with a tenotome, and three ounces of thick purulent fluid escaped, and a special drainage-tube was inserted. From this time the patient made an excellent recovery. The tubes were shortened regularly and with judgment, and on Jan. 29th she left the hospital cured. I saw her in March last, absolutely well in every way. Early this year I had a precisely similar case at the Workhouse Infirmary, treated in the same manner and making an equally perfect recovery.

Remarks.—The symptoms of acute intestinal obstruction here were quite clear, and the tumour in the left iliac region was at first thought to be a distended coil of bowel. It was only when the abdomen was opened that its nature could exactly be determined. The mechanism of the obstruction depended on a double condition of matting together of intestinal loops by some former inflammation, and on the pressure exerted on these fixed loops by the more recently developed intra-peritoneal abscess. I trusted to the evacuation of the abscess restoring the *status quo ante* to the fæcal passage through the bowel. The relapse on the seventh day was interesting because of its rapid development, its exact repetition of the former symptoms, and its immediate subjugation by the opening of another inter-intestinal fluid collection.

CASE 7. *Acute intestinal obstruction; abdominal section; incarcerated loop of small intestine; recovery.*—Late on the night of March 29th last I was asked by my colleague, Dr. Suckling, to see a patient of Mr. Aspinall of Erdington, with symptoms of acute intestinal obstruction. Mrs. B——, twenty-eight years, sparely built, always fair health, one child, four days since had slipped and fallen in the yard, hurting her left hand, and experiencing sudden sharp pain in the abdomen. She went about as usual all that day, but the abdominal pain grew worse, and at night she vomited, and Mr. Aspinall was sent for and prescribed for her. The pains increased, vomiting continued, the bowels were constipated, and on the 28th Dr. Suckling was called in consultation. He looked upon the case as one of acute intestinal obstruction, and as her condition was getting progressively worse, an abdominal exploration was suggested. At the time of my visit her face was pinched and anxious; pulse regular, soft, 90; extremities warm; tongue coated with brown fur; abdomen tense and distended, moderately tender on pressure, resonant everywhere, no local swelling; pain general and paroxysmal; occasional vomiting of brown fluid; neither flatus nor fæces per rectum since the onset of the illness. I proceeded at once to operation as giving the only chance to the patient. Chloroform and ether mixture was the anæsthetic. A two and a half inch median incision opened the abdomen midway between the umbilicus and the pubes. Distended and injected small intestine presented at the wound. The cæcum and sigmoid were examined, and found empty. The engorged gut was carefully pulled out of the abdomen in the direction of increasing congestion, and was received into perfectly clean, moist, warm towels, arranged so that not more than five or six inches of bowel were exposed at the same time. This "paying out" was continued until a great part of the small intestine was outside the peritoneal cavity; the gut was then felt to be tightly held somewhere deep in the right hypochondriac and epigastric regions. The seat of the "anchoring" could not be reached by the finger, but it lay in the direction of the foramen of Winslow. The wound was extended upwards nearly two inches, and gentle traction again applied; the intestine almost immediately became "free," as if a loop had been released, and more bowel might then have been withdrawn if desired. It was assumed, however, that the difficulty had been overcome, and the extra-peritoneal coils were rapidly "payed" back again into the abdomen without much difficulty, much in the same fashion as a hernia is reduced by taxis. No toilet of the peritoneum was made; a glass drainage-tube was passed into the pelvis, the wound closed with ten silk sutures and dressed with dry boracic acid dressings. A great deal of vomiting followed the operation, and during the subsequent twenty-four hours the patient's condition was extremely serious. Nothing had been passed from the bowel. She was therefore turned carefully on to her side, and given turpentine enemata alternately with nutrient suppositories. Immense quantities of flatus followed the turpentine injections, and changed the patient's condition for the better in a very short time. The bowels were moved twice within thirty-six hours of the operation, and from this time she made an uninterrupted recovery. Mr. Aspinall wrote me in July saying that Mrs. B—— had no further trouble and was in perfect health.

Remarks.—The nature of the obstruction in this case was far from clear. In favour of its depending on the implication of the gut by some non-pathological structure is the fact that the patient had had no previous abdominal trouble at any time. Most operators would have finished their work here, I fancy, by "enterostomy," and would not have resorted to the much condemned practice of drawing the bowels outside. Success might have attended their efforts, but I was led to adopt this "pulling out" method by the happy result which had followed in Case 4 above detailed, and the favourable termination of this second case again justified the procedure. I think it possible that this might have been a case of hernia through the foramen of Winslow.

CASE 8. *Subacute intestinal obstruction; abdominal section; cancer of sigmoid discovered; sigmoid enterostomy; recovery.*—Catherine B——, aged thirty-eight years, was admitted into the Birmingham Workhouse Infirmary on May 3rd, 1889. She was sent by Dr. Barwise as a case of acute intestinal obstruction, and gave the following history.

In her usual health ten days ago, and whilst walking home from work at night was seized with sudden severe general pain in the abdomen, not localised. During the night the pain became paroxysmal, and next day she vomited. On the third day, the symptoms continuing, she went to the General Hospital, was given some medicine, and returned to her home with great difficulty. Next morning she could not leave her bed, and Dr. Barwise was sent for. She complained of vomiting, paroxysmal pain, and constipation, and was treated by opium and enemata without relief. On admission—tenth day of illness—her general symptoms were serious. There were great prostration, anxious expression, cold clammy skin, cyanosed hands and face; pulse scarcely perceptible. The abdomen was distended, acutely and paroxysmally painful, tender generally, resonant everywhere, and without local swelling; vomiting distinctly fæcal, constipation complete since onset of illness. She rallied somewhat in response to warmth and stimulants, and a few hours after admission was submitted to operation. Chloroform and ether mixture was the anæsthetic. A two and a half inch median incision opened the abdomen between the pubes and umbilicus. Small intestines presented at the wound. They were distended and deeply injected. A finger passed towards the right iliac fossa found a full cæcum, and on similarly investigating the opposite side the sigmoid flexure was distended above the level of an annular nodule of hardness towards its lower end, and about one inch in width. This growth could not be brought up to the median wound. A second incision was at once made over the left iliac region as for ordinary sigmoid colotomy, and through this the nodule could be more easily manipulated. There was no doubt as to its malignant nature, and the question of immediate excision at once suggested itself. The proposal was abandoned because the meso-sigmoid was extensively infiltrated, and tied down the tumour so closely to the parieties that its removal would have required a more prolonged operation than the general condition of the patient would allow. The distended gut was stitched with silk to the skin, and opened immediately. The median incision was sutured with iron wire, and both were dressed with dry boracic dressings. The patient was fed with small nutrient enemata for forty-eight hours, and was only allowed teaspoonfuls of water by the mouth. On the following day she was very much better, immense quantities of liquid fæces and thick tenacious mucus had escaped from the artificial anus; the abdomen was flat, free from pain, and the vomiting had entirely ceased. She made an uninterrupted recovery from the time of the operation, and is still passing the whole of her fæces through the opening in the groin. The tumour continues to enlarge, and she has secondary growths in the liver; but she has had no intestinal discomfort since the sigmoid was opened.

Remarks. — Because of the prostrate condition of this patient at the time when I first saw her, no careful history of her health previously to this last illness could be obtained; but a few days later, when her state allowed of it, I learned that for twelve months she had occasionally felt cramp-like pains in the abdomen, usually coming on after drinking beer or tea, but without constipation or vomiting. These pains had become rather more frequent of late, and she had passed per rectum slimy mucus, without blood or pus. Here is a typical case of acute intestinal obstruction occurring in the course of a chronic malady. The contracting growth in the sigmoid had for months given rise to transient attacks of so-called "spasms," and so long as the fæcal way was open nothing further resulted; but from some cause or other, most probably through the sudden plugging of the narrowed lumen by a piece of food stuff which had defied the actions of the digestive juices, the fæcal current was arrested, and the characteristic symptoms of acute intestinal obstruction rapidly set in. It was not clear before the operation whether the obstruction was in the large or small intestine, and the usual median incision therefore was first performed. A somewhat similar case in a man under my care at Queen's Hospital was successfully operated on in May last. I saw him recently, when he was in comfortable health. The above successes are not without their accompaniment of failures, which might best be discussed perhaps in a paper on the "Dangers and Disasters of delayed Diagnosis."

In conclusion, I would suggest:—1. In acute intestinal obstruction our attention should be primarily directed to the strangulation of the walls of the bowel rather than to the stoppage of the fæcal current. When strangulation exists immediate operation is demanded. 2. The ordinary text-book distinctions between obstruction in the large and small bowel are not always to be depended on. 3. In all obstructions above the rectum calling for operation median abdominal incision is the proper primary procedure. 4. That when the abdomen is opened the examination of its contents should be systematic and expeditious, the hand being introduced into the peritoneal cavity, if necessary, and if the obstruction is not quickly discovered the most distended coil should be fixed to the skin and opened at once. If the large intestine is the part involved, the cæcum or sigmoid should be brought through a special opening made in either groin. 5. With proper precaution a few feet of bowel may be withdrawn from the peritoneal cavity, and returned without difficulty and without serious risk. 6. Rapidity of procedure with a minimum of disturbance are the essentials of operative success. 7. The number of lives saved by abdominal section will increase as earlier and more accurate diagnosis comes to be made.

Birmingham.

ALBUMINURIA AND LIFE ASSURANCE.

A MEMORANDUM ON THE PRESENCE OF ALBUMEN IN THE URINE OF CANDIDATES FOR LIFE ASSURANCE.

BY PROF. THOMAS R. FRASER, M.D., F.R.S.

UNTIL recently it had generally been accepted, for purposes of life assurance, that the presence of albumen in the urine was in itself sufficient reason for the non-acceptance of the life in which it occurred, as in the absence of several well-marked disorders, which were themselves incompatible with the acceptance of the risk, albuminuria was believed to indicate structural disease of the kidneys, or Bright's disease. A number of observations have, however, been recorded within the last fifteen years, which have drawn attention to the circumstance that albumen may be found in the urine of persons who do not exhibit any of the general symptoms of Bright's disease, nor even any evidence of important deterioration in health. In forming an opinion as to the bearing of albuminuria upon the eligibility of a life for assurance, it is important to bear in mind that Bright's disease may actually be existent without constant albuminuria; and also that it is open to doubt if a person whose urine contains even but slight traces of albumen, although no recognisable coincident symptoms of Bright's disease or of any other serious disorder exists, is actually in a healthy condition, and therefore a proper risk at ordinary rates. As all forms of Bright's disease are accompanied by other symptoms than the mere presence of albumen in the urine, cases of this disease, in which albumen is very small in quantity, or is altogether absent when an examination is made, can usually be detected by the medical examiner. The presence of albumen in the urine without any recognisable indication of disordered health is therefore the condition in which the greatest difficulty is encountered. This difficulty is increased by the circumstance that attention has so recently been prominently directed to these cases, that sufficient time has not yet elapsed for showing if any, or what proportion, of them afterwards develop unmistakable symptoms of structural disease of the kidneys. Nor can much assistance be obtained by the medical examiner from the conditions that are present where albumen occurs in the urine unaccompanied with recognisable evidence of important disorder in health, for little more has been ascertained than the following:—Many of the persons in whom it occurs are of youthful or adolescent age; many suffer from disorders of digestion; the quantity of albumen in the urine is usually very small; it is not constantly present; and, in a large number of the cases, it appears only after fatigue of the body or mind. It has also to be considered that the number of chemical tests employed for the discovery of albumen in the urine has recently been greatly increased, and that many of them have been introduced because they are specially adapted for the discovery of minute traces of this substance. It is undoubtedly the case that several of these tests are difficult of application, and are open to the objection that they produce changes in the urine which are not necessarily dependent on the presence of albumen. The effects they produce are therefore liable to erroneous interpretation, and by their use alone, without confirmatory evidence from other tests, albumen may be supposed to exist in urine which is actually free from it. It would accordingly be an advantage if one system of testing were invariably adopted, in which the test employed is

sufficiently delicate to discover small quantities of albumen, and is at the same time free from the objections that have been referred to. With this object I would recommend the invariable adoption by the medical officers of the company of the well-known test of boiling a small quantity of the urine in a test-tube, then adding a drop or two of concentrated nitric acid, and again boiling. Without the certainty that this or some other equally satisfactory test has been employed, it is often very difficult for the medical adviser of the company to be satisfied that a sufficient examination of the urine has been made, and that the statement that there is no albumen, or, especially, that there is a trace of albumen, is justified. On the understanding that the above condition is fulfilled, for the purpose of arriving at a decision with regard to the eligibility of a proposer in whose urine albumen has been discovered, three groups of cases may be adopted—viz., (A) in which the urine contains a large, or fairly large, quantity of albumen; (B) in which the urine contains only a small quantity or minute trace of albumen, associated with the conditions to be afterwards stated; and (C) in which the urine contains a small quantity of albumen unassociated with any distinct evidence of important disorder in health.

A. *The urine contains a large, or fairly large, quantity of albumen.*—If the precipitated albumen exceed one-eighth of the urine after it has stood at rest for twenty-four hours, the proposal should be rejected, unless there exist some disease, considered to be temporary, of the bladder or urethra, when the decision may be deferred until recovery from the temporary disease.

B. *The urine contains a smaller quantity than one-eighth of albumen.*—The proposal should be rejected if there be—(1) Enlargement of the heart; (2) increase of arterial tension; (3) increase in the quantity of urine, to the extent of more than fifty ounces in the twenty-four hours; (4) unduly low specific gravity, 1010 being regarded as the lowest density consistent with health—the specific gravity must, however, be determined only in a sample of the mixed urine of twenty-four hours; (5) a sediment containing epithelial, fatty or granular tube-casts; (6) with increased quantity and low specific gravity of urine, a sediment containing hyaline tube casts; (7) dropsy, or a history of dropsy, within the last two years; (8) a history of lead poisoning, or the existence of conditions rendering this form of poisoning probable; (9) a history of scarlet fever after twelve years of age; or (10) evidence of gout or of syphilis, or a history of these diseases.

C. *The urine contains a small quantity of albumen, unassociated with any evidence of important disorder in health.*—The conditions stated under B having been excluded, in the present state of knowledge regarding this group of cases, it does not appear to me prudent to adopt any other course except the following:—The urine should be re-examined on two or three consecutive days, the examined urine being on each occasion a sample of the total urine of the twenty-four hours, mixed together; if no albumen be found on any of these subsequent examinations, the proposal might, I think, be accepted at ordinary rates; if, on the other hand, albumen is discovered on any of the subsequent examinations, the proposal should be deferred for six months, when an examination on the above plan should again be made.

Edinburgh.

THE SKEWER METHOD OF PREVENTING HÆMORRHAGE DURING OPERATIONS.

BY BRIG.-SURG. K. McLEOD, A.M., M.D., F.R.C.S.E.,
PROFESSOR OF SURGERY, CALCUTTA MEDICAL COLLEGE.

IN June, 1867, when in medical charge of the district of Jessore, I undertook the formidable operation of removing the right upper extremity, including the scapula and outer third of the clavicle, of a boy aged about two years, on account of an enormous malignant growth implicating the arm from the shoulder to the elbow, and exceeding in circumference the girth of the body. This was before the days of elastic cords and pressure forceps, when the tourniquet, and in rare instances preliminary ligation of the main artery, were the only known means of saving blood in operating. The early steps of the amputation, as recorded at the time, were as follows: "The patient having been put under chloroform, I took a semilunar flap from the front of the armpit and shoulder, and cut down at once through the pectoralis major and minor on the axillary vessels. The artery was immediately secured with a ligature; but, the vein discharging copiously and a large branch (the acromial) which had been divided close to the trunk bleeding actively, I passed a long needle through the skin under the vessels and thrust the point outwards and upwards so as to rest on the clavicle. This expedient completely and at once stopped all bleeding." The operation was then completed as quickly as possible without much hæmorrhage, and the vessels secured without delay. The loss of blood must, however, have been very considerable, and was probably the principal cause of the death of the little patient by shock shortly after the completion of the operation. The expedient adopted in this case was simply acupressure.

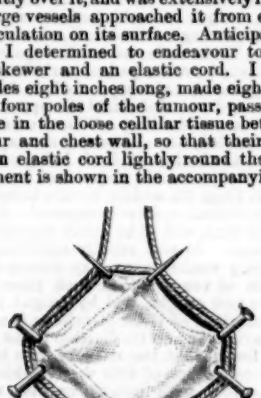
In September, 1880, a Hindoo, aged forty-five, presented himself at the Medical College Hospital with a huge cyst in his left axilla containing venous blood. It had developed in the course of two months, and measured twelve inches in transverse and eight inches in vertical diameter. The operation for its removal was described in these terms in a paper read at the Calcutta Medical Society[1]: "The operation was performed by Dr. McLeod under chloroform and strict antiseptic precautions on Sept. 19th, 1880. The axillary vessels were controlled by a new method. Wood's hernia needle was pushed in from the inner border of the left coracoid process beneath the axillary vessels and brachial plexus, and made to emerge below the clavicle about an inch and a half from its sternal extremity. Six catgut threads forming a loop at one end were drawn through the track of the needle by its withdrawal. Their ends were then passed through the loop and tightened over a pad of carbolic gauze. The radial pulse disappeared, and reappeared on loosening the loop. An elastic cord was tied round the upper third of the arm to prevent venous bleeding. The circulation having been thus commanded, the tumour was exposed by a T-shaped incision, the horizontal limb being parallel to the lower border of the pectoralis major and the vertical at right angles to it from its middle to the inferior angle of the scapula. The tumour was easily exposed. It was found to present a bluish tint, and to be easily separable from the surrounding tissues. It was rapidly enucleated, but its posterior wall being weaker gave way during this process, and a great gush of venous blood took place. Its deep attachments were now sought, tied by catgut threads, and divided. The principal of these attachments was found at the apex of the axilla, and on its division (after preliminary ligature) it was found that the axillary vein had been cut across. The distal orifice of this vessel, which emitted a little blood, was tied with catgut, as also that of the subscapular vein. The tumour was now removed. It was found to extend as far back as the vertebral border of the scapula between the subscapularis and serratus magnus muscles. Its removal had necessitated a complete dissection of the axilla. The loop was gradually relaxed, and a few arterial points secured. It was felt from the inside of the wound, and left *in situ* for a few days in case of secondary hæmorrhage. The radial pulse returned. The wound was stitched, drainage-tubes inserted, and an antiseptic dressing applied." The patient made an excellent recovery, and Professor McConnell, who examined the tumour, found that its cavity was lined with epithelium, and communicated with the axillary vein by an opening "capable of admitting the little finger." He pronounced the cyst to be "an aneurysmal-like expansion from the axillary vein, and not an adventitiously formed cyst." The plan so successfully resorted to in this remarkable case may be described as a "temporary percutaneous ligation" of the axillary vessels. A similar plan is recommended by Professor Spence[2] for employment in the removal of large scrotal tumours; but, as I shall show in a future paper, more easy and effective methods have been devised for this purpose.

The same device which had proved so efficient in the case of hæmatoma was resorted to in July, 1883, in an amputation of the right upper extremity (including the scapula and part of the clavicle) for a large sarcoma of the arm and shoulder in a lad of twenty. It was found, however, that the vessels were displaced backwards by an extension of the tumour into the axilla, and that the loop passed in front of them instead of

[1] Vide Indian Medical Gazette, Nov., 1880, p. 305.
[2] Lectures on Surgery, vol. ii., p. 1369.

behind them. Fortunately, an elastic cord had been, for additional security, wound round the shoulder, and the large vessels were secured by Spencer Wells' forceps before much loss had taken place. The failure of the loop in this instance suggested the idea of passing a skewer behind the vessels from the neck and compressing them against it by an elastic cord, but I had no opportunity of trying the plan. In 1885, while on furlough, I had the satisfaction of seeing the thing done by Mr. Joseph Bell in a case of amputation of the left upper extremity (including the scapula and part of the clavicle) for a large sarcoma of the shoulder. The suggestion came from Professor John Chiene, who invented an instrument for the purpose. It was a long, flat, slightly curved rod, pointed at one end, and it was entered at the base of the posterior triangle of the neck, passed behind the clavicle, vessels, and nerves, along the inner wall of the axilla, and brought out near the anterior fold of that cavity. A strong rubber cord was looped round the ends of the skewer, after the manner of a twisted suture. The amputation was almost bloodless, and the boy made an excellent and speedy recovery. This brilliant case impressed me greatly, and I determined to adopt the skewer plan whenever a suitable opportunity occurred.

On Dec. 27th, 1889, a middle-aged man was admitted into the Medical College Hospital with an immense malignant tumour of the left mammilla. The circumference of its base measured 23½ in. It moved freely on the chest wall, and the axillary glands were not enlarged. The skin was stretched tightly over it, and was extensively implicated, and numerous large vessels approached it from every side, and formed a reticulation on its surface. Anticipating very free hæmorrhage, I determined to endeavour to control it by means of a skewer and an elastic cord. I procured four packing needles eight inches long, made eight punctures in pairs at the four poles of the tumour, passed the needles through these in the loose cellular tissue between the base of the tumour and chest wall, so that their ends crossed, and wound an elastic cord lightly round these eight ends. The arrangement is shown in the accompanying sketch of a



model made with paper, pins, and silk. The effect of the adjustment was in the first instance to render the tumour prominent, stretch the skin tightly over it, and contract its base. When the incisions were made the flaps slid down, and a few touches of the knife sufficed to reflect them. As the tumour was removed the elastic circle grew smaller, and the wound measured only about 3 in. in diameter on detachment of the growth. There was no bleeding during or after the operation except what came from the tumour, and from a vessel which entered its base from between two ribs, and was speedily secured by forceps. The elastic cord was gradually loosened, and the vessels seized and tied as they became apparent. Not fewer than 100 points had to be ligatured, and the wound finally gaped to the extent of about two inches. The edges of the flaps came together, but the stitches dragged after a few days, and the central portion healed by granulation. The flaps retained their vitality except at one point, where a deep stitch caused excessive tension. The punctures healed readily, and the progress of the case has been quite satisfactory. A curious incident occurred during convalescence. On the 15th of January an enlarged elastic gland was observed in the axilla. It was removed on the 16th and found to be converted into a mass of cavities containing clear serous fluid. When one cavity was pricked the serum escaped, and the mass collapsed. The tumour weighed 88 ounces, and was found by Dr. J. B. Gibbons to be an alveolar sarcoma. This combination of transfixion with elastic compression is likely to be of service in many cases where the elastic cord cannot be conveniently or effectively applied externally, and requires some additional contrivance to retain it *in situ*. I observe that it has been recommended by Mr. Thomas Myles, of the Jervis-street Hospital, and employed successfully in amputating at the hip-joint by Dr. R. J. Garden of Aberdeen.[3] Mr. Joseph Bell of Edinburgh taught me to transfix the corpora cavernosa with a needle and apply an elastic ligature above it in amputating the penis, and I have repeatedly practised this plan with advantage. I may here remark that I have found stitching the edges of the fibrous capsule of the corpora cavernosa with a few points of catgut to be a useful measure in such cases, and Mr. Bell is in the habit of doing the same in cases of partial removal of the tongue. My colleague, Dr. D. O'C. Raye, had recently occasion to remove a large fatty tumour from the tip of the tongue of a child. He transfixed the organ crucially with two needles and wound a bit of drainage-tubing above the needles. This prevented retraction, and enabled him to stop bleeding and stitch the edges together in a most satisfactory manner. The same principle is also applicable to erectile tumours which it is desired to strangulate temporarily during the process of injection. I have seen this repeatedly practised by Sir Joseph Lister with needles and silk. Drainage-tubing would probably be preferable to silk. The skewer method now recommended and illustrated is a combination of acupressure and elastic pressure—Simpson *plus* Esmarch,—and the method of application specially demonstrated in this article renders possible the bloodless removal of large vascular growths with a broad base.

Calcutta.

A CASE OF

SEVERE CHOREA, TERMINATING FATALLY FROM ACUTE PARALYTIC DISTENSION OF THE STOMACH.

BY HERBERT H. BROWN, M.D. LOND., F.R.C.S.,
HOUSE PHYSICIAN AT THE GENERAL HOSPITAL, WOLVERHAMPTON.

E. G——, a girl aged sixteen, was admitted to the hospital on Oct. 26th, 1889, under the care of Dr. Malet. In August the patient had suffered from acute rheumatism, for which she had been treated in the hospital. She went to the convalescent home towards the end of September, and after a fortnight began to show symptoms of chorea, which rapidly became severe; at the same time she became melancholic and emotional. She had had no previous attack of chorea, and the present one was attributed to anxiety about domestic matters. On admission the patient was suffering from severe chorea, affecting the whole body. She was emotional, crying without apparent cause, but had no delusions. There was a loud musical systolic bruit at the apex. Temperature was 100° on admission, and 102° on the following evening. She was treated with ten minims of liquor arsenicalis three times daily. By the seventh day after admission all the symptoms had become aggravated, the chorea was much more severe, the limbs, face, eyes, and tongue being in continual movement, and the body continually tossed from side to side in bed. The mental condition also was worse, and she had had no sleep except on the second night in spite of several large doses of bromide of potassium and chloral. The temperature had been febrile throughout, ranging between 101° and 103°, and the pulse had become weak and rapid (140 per minute); the cheeks were flushed, and the general appearance was suggestive of typhoid fever. For the last day or two there had been redness and œdema on the dorsum of the right hand and the left index finger. Twenty grains of salicylate of soda were given every four hours, with half an ounce of brandy, the arsenic having been discontinued. Next day the patient's condition was still worse; she had not slept, in spite of a large dose of bromide and chloral, the pulse was worse (160 per minute), and there were great excitement and delirium; the temperature remained much the same, and the choreic movements were aggravated. Towards evening a draught containing forty minims of tincture of hyoscyamus, with thirty minims of tincture of cannabis indica

[3] Vide Brit. Med. Journ. of Nov. 9th, 1889, and Jan. 4th, 1890.

and twenty grains of bromide and twenty grains of chloral, was administered. She fell asleep in five minutes, and slept for about three hours. On awaking, the chorea seemed redoubled in intensity. Another draught was given, and followed by two hours' sleep. The salicylate was discontinued. Next day (the ninth after admission) she looked rather better; the delirium was gone and the chorea diminished; temperature 101·4°. Next day she was still quieter; temperature 102°; pulse 136; the face was flushed, the abdomen slightly distended, and there was some diarrhœa, the bowels acting four or five times in the day. Another draught containing cannabis indica and hyoscyamus was given, and she slept for about four hours. On the following day (the eleventh after admission) the chorea was almost gone, but there was very persistent vomiting. She vomited nearly every half hour through the day, generally only a few ounces at a time, a greenish fluid. The diarrhœa remained as before; five loose stools. Next day the chorea had practically disappeared, and the vomiting was very much less, only once or twice in the day after food, but the distension of the abdomen persisted. Early in the morning (4 A.M.) on the following day (the thirteenth) I was called up to see the patient, and found her profoundly collapsed, with a small thready pulse, only just perceptible at the wrist. The abdomen was greatly distended and resonant on percussion. No liver dulness could be made out in front. She was perfectly conscious, felt that she was dying, and complained of a "jumping pain" in the abdomen. The collapse was attributed to perforation of a typhoid ulcer. Death took place twelve hours later, the patient retaining consciousness to the last. There had been no vomiting for the last twenty-four hours, and no urine had been passed.

Leave to make a complete necropsy could not be obtained, but an incision was made in the middle line between the umbilicus and pubes. On opening the peritoneum, a cystic tumour presented itself, and on introducing the hand this was found to be part of an enormously distended stomach, which occupied the entire abdominal cavity, extending from the diaphragm on the left to the right iliac fossa. The intestines were quite empty and collapsed, and compressed into the pelvis and right iliac fossa. The stomach could not be removed entire, and more than half of its contents escaped before they could be measured; the remainder, however, was sufficient to nearly fill a large basin. It consisted of a greenish-brown fluid, of about the consistency of thin pea-soup. The fluid was examined spectroscopically by Dr. C. A. MacMunn, who pronounced the colour to be due to the presence of a large quantity of acid hæmatin. The wall of the stomach was very much thinned, and it collapsed to a great extent when emptied; there were several brownish-red patches in the mucous membrane, as though there had been some slight hæmorrhage into its substance. The mitral valve of the heart showed the beading of recent endocarditis.

Remarks.—Acute paralytic distension of the stomach, causing death in a few hours, with symptoms of profound shock, is a very rare and very interesting pathological condition. Very little seems to be known about its pathology, and very few cases appear to have been recorded. Two cases of this kind were described by Dr. Fagge, and are mentioned in his book on Medicine. They presented symptoms almost identical with those met with in this case — i.e., symptoms of profound collapse with great abdominal distension and suppression of urine, preceded by severe vomiting. In one of these cases the condition had been diagnosed and the stomach emptied by a pump, and the case was found to be complicated by an abscess resulting from an ulcer of the duodenum.

Wolverhampton.

THE PUBLIC HEALTH MEDICAL SOCIETY. — A meeting of the Council of this Society was held on Friday, the 11th inst., at its offices, 101, Great Russell-street, Bedford-square, W.C., Dr. Newsholme, of Brighton, in the chair. The new regulations for qualifications in Sanitary Science, framed by the various licensing bodies to meet the requirements of the General Medical Council, together with certain communications which have passed between the latter body and the Society, were under discussion. The following gentlemen were appointed local secretaries: Dr. Caldwell Smith for Glasgow, and Dr. Maxwell Ross for Edinburgh. Seven medical men holding qualifications in Public Health were elected members of the Society.

THE COMPOSITION OF BEEF-TEA, AND ITS VALUE AS COMPARED WITH SOME OTHER PREPARATIONS OF BEEF.

BY ARTHUR P. LUFF, M.D., B.Sc.,

LECTURER ON MEDICAL JURISPRUDENCE AND TOXICOLOGY IN ST. MARY'S HOSPITAL; ASSISTANT PHYSICIAN TO THE NORTH-WEST LONDON HOSPITAL.

IT is not my intention in this paper to discuss at any length the value of beef-tea as a food, as that aspect of the question has recently been ably dealt with by Messrs. Thomas Laffan and Charles Moore Jessop. But, even supposing that beef-tea possessed no nutritive value, yet its value as a stimulant and a tonic to invalids cannot be denied. Although it is well known that beef-tea prepared by the ordinary method contains but little proteid or albuminous matter, yet the analyses that have so far been made indicate the actual composition of beef-tea in a somewhat vague manner; and even the most recent analysis by Sir C. Cameron, published in Mr. Laffan's paper "On our Exaggerated Estimate of the Value of Beef-tea,"[1] gives no separate estimation of the proteid or albuminous matter in the beef-tea, but, with the exception of the fats and salts, groups together the non-nitrogenous with the nitrogenous constituents. It therefore seemed to me desirable that a complete analysis of beef-tea should be made, so that we might thoroughly understand the composition and nature of the article we are so frequently ordering for use; and, as I have recently been employing some preparations of beef with apparent success as a substitute for beef-tea and in rectal alimentation as one of the ingredients of the nutrient enemata, it occurred to me that analyses of these preparations of the strength ordinarily employed, so as to show their comparative dietetic, stimulant, and tonic value to ordinary beef-tea, would be of value as a guidance to members of the medical profession.

My original object in using these preparations was that while, previously to my making the analyses about to be described, they appeared to be as strong and as useful as beef-tea, their cheapness and the saving of the labour involved in making beef-tea were strong recommendations for their use in hospital practice. The various beef-teas of which I have so far made complete analyses are (1) strong beef-tea, made by finely chopping one pound of the best rump steak, mixing it with one pint of water, and infusing for six hours in an earthenware vessel kept in boiling water during that period, the beef-tea being not strained, but on standing poured off from the portion of the meat débris that had settled, some particles of meat débris still remaining in suspension; (2) beef-tea prepared by adding one dessert-spoonful of concentrated bouillon Fleet to a large cupful of water; (3) beef-tea prepared by dissolving one teaspoonful of Kemmerich's peptone of beef in a large cupful of water; and (4) beef-tea prepared by dissolving a quarter of a tea-spoonful of Kemmerich's extract of beef in a large cupful of water.

The proportion of total solid matter in each of these beef-teas was first determined with the following results:—

—	Strong beef-tea, made from rump steak.	Beef-tea made with bouillon Fleet.	Beef-tea made with Kemmerich's peptone of beef.	Beef-tea made with Kemmerich's extract of beef.
Total solid matter	2·54	3·45	4·01	2·16
Water	97·46	96·55	95·99	97·84
	100·00	100·00	100·00	100·00

I have made complete quantitative analyses of each of the solid residues left on the evaporation to dryness of

[1] Brit. Med. Journ., Jan. 26th, 1889.

these four beef-teas, with the following results, which represent the percentage composition of the beef-teas.

	Strong beef-tea, made from rump-steak.	Beef-tea made with bouillon Fleet.	Beef-tea made with Kemmerich's peptone of beef.	Beef-tea made with Kemmerich's extract of beef.
Peptones and nitrogenous extractives	1·81	2·20	2·11	1·50
Albumen	0·05	0·09	0·36	0·03
Fat	0·01	0·02	None	0·01
Gelatine	None	None	1·05	None
Non-nitrogenous extractives	0·14	None	None	None
Salts	0·53	1·14	0·49	0·62
Water	97·46	96·55	95·99	97·84
	100·00	100·00	100·00	100·00

These analyses show that only a very small quantity of proteid or albuminous matter is present in all the beef-teas examined, and also that the beef-teas made from bouillon Fleet[2] and from Kemmerich's peptone of beef are throughout stronger in composition than the best beef-tea made by the ordinary process from rumpsteak, while the beef-tea made with one-quarter of a teaspoonful of Kemmerich's extract of beef to a cupful of water is slightly weaker than ordinary beef-tea. We have therefore in beef-tea prepared either with bouillon fleet or with peptone of beef a preparation which is stronger as regards every important constituent than ordinary beef-tea, while it can be prepared at one quarter to one-third the cost, together with a saving of the labour involved in making ordinary beef-tea. The comparative cheapness of these preparations is easily understood when we consider the great difference in the price of beef in this country and in South America.

It will be seen from these analyses that the stimulant, tonic, and dietetic properties of beef-tea depend mainly upon the peptones. That these bodies are of value to invalids as stimulants and tonics is now, I imagine, generally accepted, and it is probable that their dietetic value has hitherto been somewhat under-estimated. The recent experiments of Hofmeister and those undertaken in Professor Kronecker's laboratory by Fräulein Nadine Popoff and Fräulein Julia Brinck point to the fact that peptones do not simply diffuse through the walls of the intestine, but are taken up by the mucous membrane and transformed by it, as a result of the vital activity of its cells, into serum albumen.

Westbourne-terrace, W.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

ON THE PULSE AS AN INDICATION FOR EXPLORATORY ABDOMINAL SECTION IN CASES OF ACUTE TRAUMATIC PERITONITIS.

BY G. H. BURFORD, M.B.,

LATE HOUSE PHYSICIAN TO THE HOSPITAL FOR WOMEN, SOHO-SQUARE, W.

EXPLORATORY SECTION as a diagnostic aid in chronic abdominal lesions is now, mainly owing to the teaching of Tait, a legitimate and daily operation. Exploratory section for diagnosis in acute abdominal conditions, as in probable intussusception, intra-peritoneal hæmorrhage, or suppurative peritonitis, has also greatly enlarged the sphere of practical surgical interference. I wish to call special attention to a type of case in which exploratory section is as urgent and imperative as in the last-mentioned group, and without which procedure diagnosis must continue to be indeterminate and unsuggestive. Every ovariotomist is or has been familiar with a post-sectional state in which a lethal peritonitis has occurred, characterised by an entire absence of classical symptoms. Thus, in a series of twelve fatal cases after abdominal section observed by me (and in each one post-mortem examination showed death to be due to peritonitis), the temperature rose in the majority not more than a degree, in four cases not at all. Vomiting, though present in all, varied much in its initiation and its maximum period, in the majority, beginning on the second day; in two cases it was scarcely marked until the day before death. Meteorism of intestines is never absent, but this may occur with no peritonitis at all after section. The hyperæsthesia of the abdominal parietes may exist in no greater degree than proportionate to the distension. But the pulse in every case showed a characteristic curve, rising continuously up to the time of death, with no marked remissions. It was seldom wiry, but rather small, irritable and easily compressible. Now, cases are of frequent occurrence, in which acute traumatic peritonitis, rapidly tending to death, presents just such an adynamic form as pictured above. The following instance shows these points clearly:—

A. B——, aged twenty-eight, and nursing her first child, was injured while lying in bed by a large mass of ceiling falling upon her, she receiving its impact on the left flank. Twelve hours after the accident her temperature was 98·6°; pulse 120. Constant nausea, but only slight and occasional vomiting; face slightly flushed; eyelids closed; answered questions at once and quite rationally, and voluntarily indicated the seat of by no means acute pain. On examining the trunk no sign of bruise or abrasion showed itself; abdomen normally resonant, somewhat tender to touch; no muscular hæmatoma; no solution of continuity discoverable. There was no sign of impending collapse beyond the tendency to lie quite passive, with the eyelids closed. The diagnosis was a general one, simply asserting the existence of subacute traumatic peritonitis; and the suggestion of exploratory incision was made should the pulse continue to rise. Early next morning I was summoned to operate, but before I could arrive at the patient's house, some distance from town, she had become moribund, and died thirty hours after the accident. The necropsy by Mr. Dudley Wright showed recent purulent peritonitis; no intra-peritoneal hæmorrhage, but a ruptured duodenum, the fissure extending parallel to the short axis of the gut for about an inch, with escape of the intestinal contents. The left kidney was bruised, but not torn or pulped. For exploratory section to have been of avail in this case it ought to have been done during the first twelve hours, as shortly afterwards the patient's state became collapsed from which there was no rally. The only indication for exploration was the rising pulse, this gradually mounting to 120 per minute at the end of the twelfth hour. After this time it rapidly increased in frequency and lessened in force, finally becoming uncountable. The study of fatal post-sectional cases shows, however, that the earliest, most certain, and most constant sign of adynamic peritonitis is a rising and weakening pulse; and guided by this observation, I should place serviceable exploratory section in point of time on the plane of tracheotomy in croup; to be of avail, it ought to be done early—and, failing more marked indications, a pulse over 120 per minute and tending to rise should determine immediate action. In this single sign I believe we have an almost infallible guide; for, again, when adynamic peritonitis is arrested, the first indication is afforded by a lowering and strengthening pulse. Cardiac inhibition is the prominent clinical feature in this class of lesion.

Queen Anne-street, W.

A CASE OF ACUTE PEMPHIGUS, WITH TRANSFERENCE OF THE LOCAL LESION BY DIRECT CONTAGION.

BY J. V. SALVAGE, M.D., M.S., &c.

R. B——, female, the fourth child of English parents in good health, who have spent the last eight years in Singapore and Ceylon, was noticed, on the third day after birth, to have two bullæ, the size of florins, on the back of the neck; others, smaller, shortly appeared on the chest and inside of the thighs. The nurse thought that from birth the child had not been quite well; it was, however, not seen by me until the fourth day of the rash. It was then

[2] The concentrated bouillon Fleet is manufactured at Santa Elena, in South America, from fresh beef obtained only from cattle reared on the Company's estates.

decidedly ill, its temperature was 102·5°, and it was restless and refused to suck. Numerous bullæ were present on the scalp, face, chest, arms, and legs; two, an inch and a quarter in diameter, together with several smaller, covered almost completely the upper half of the back. Many fresh bullæ appeared daily for fifteen days. The greater number were the size of a pea, and burst, without becoming tense, when about an eighth of an inch in height; they were circular, not surrounded by an inflammatory zone, yielded a clear fluid, and showed no disposition to coalesce or to become pustular.

The only regions quite free were the palms and soles. No scarring or pigmentation ensued, but for more than a fortnight after the formation of the bullæ had ceased, free desquamation occurred, during the course of which the right thumb-nail was exfoliated. Considerable constitutional disturbance, restlessness, and reluctance to take the breast persisted throughout. For the first ten days the thermometer registered over 101° night and morning; on the ninth, tenth, and eleventh days the condition was serious, and vomiting followed nearly every attempt at feeding. A slight temporary attack of laryngitis and bronchitis set in at the end of the first week. No bullæ were found in the mouth. The urine was not examined. When first seen half a grain of quinine was given three times a day, but with no apparent benefit. On the tenth day this was replaced by one minim of liquor arsenicalis three times a day. Marked improvement rapidly, and I believe as a result, followed this change. Zinc and starch were at first applied locally, but subsequently vaseline and borac acid were substituted. It is worthy of note that four days before the bullæ ceased to be formed on the child, several appeared on the breasts and forearms of the mother. One, a little below the left nipple, was as large as a sixpence, three others on the chest were smaller; on each forearm there were about twenty, the size of peas. They were most numerous on the front surface; none occurred on the palms or on any other part of the body. In appearance they exactly resembled those on the infant; they lasted three or four days, and no fresh ones developed after they ceased to be produced on the child. They were evidently the result of direct local contagion. The mother, who always wore short sleeves, alone nursed the child; indeed, during the three or four days and nights which preceded the eruption on her chest and arms, she spent nearly the whole of the time sitting on a chair with the child in her lap. Slight itching followed the bursting of the bullæ, but there were no constitutional symptoms, and no treatment was needed. Both child and mother have remained quite well during the three months which have elapsed since the attack. There is no suspicion of syphilis in the case.

Trincomalee, Ceylon.

SCLEROSIS OF THE MUCOUS MEMBRANE OF THE NYMPHÆ AND VESTIBULE.

By JAMES OLIVER, M.D., F.R.S. EDIN.

THIS chronic disease, which is akin to that of scleroderma, is comparatively speaking of rare occurrence. On account of certain well-defined and very distressing associations, it is nevertheless of sufficient importance to warrant attention. It develops usually about the time of the cessation of the functional activity of the female organs of generation, and is slowly progressive. It consists in an increase of the fibrous tissue of the corium, and in consequence of this change the vessels which are located in the fibro-vascular layer are gradually more or less completely obliterated, whilst the nerve filaments belonging to the mucous membrane are at the same time and for a like reason disturbed. Usually the whole of the mucous membrane covering the nymphæ and vestibule is affected; occasionally, however, the disease appears only in patches. It is characterised by intense pallor, induration, more or less dryness, and impairment of elasticity of the affected parts. The symptoms are intense irritation of the external genitals and gradually increasing loss of extensibility of the entrance to the vagina, whereby coitus is rendered more and more difficult, and eventually impossible. The change does not, however, extend to the mucous membrane of the vagina, but is limited to that portion of this tissue which is external to the hymen. The secretion of the vagina is of normal reaction, acid, and apparently normal in amount; whilst that of the affected membrane is greatly lessened in quantity, or even totally suspended. Excoriations, more or less extensive, may be noted in consequence of the friction which is employed to relieve the very distressing irritation. No sugar can be detected in the urine of patients suffering from this form of sclerosis, and the appearance of the parts is quite different from that which we observe in association with diabetes, or as resulting from simple friction. The blanching is due to the diminution of the amount of blood in the tissues in consequence of the pressure exerted by the newly formed fibrous tissue. The irritation, too, is produced in a similar manner; the gradually increasing growth of fibrous tissue disturbs the molecular state of the delicate nerve filaments. In the majority of cases the patients complain of experiencing a burning sensation during coitus for some months before any evidence of change in the parts can be noted. The disease is caused by unknown conditions, and results in permanent loss of sexual capability.

Gordon-square, W.C.

INFLUENZA: DOUBLE ATTACK.

By C. E. ABBOTT, M.R.C.S.

THE following notes of a double attack of influenza may be of interest at the present time:—

The first attack from which I suffered began on Jan. 18th, 1890, and presented no special points of interest. The temperature rose to 102°; there was moderately severe headache, but no backache or other complications, and convalescence was satisfactory, slight follicular pharyngitis only remaining. The treatment consisted of twenty grains of salicin every hour for eighteen hours, then quinine. The second attack began on the evening of April 3rd with a feeling of chilliness and stiffness of the muscles of the limbs. Early on the morning of the 4th, headache, chiefly frontal, and severe pain in the lumbar region began; no coryza, cough, or vomiting; the temperature rising rapidly from 99·4° at 7 A.M. to 102° at 1 P.M. Pulse 104. Headache and pain in the back very severe. Ten grains of antipyrin taken at 12 noon relieved the pain in both regions, and a little sleep followed. The depressing effect of the antipyrin on the heart was marked. Evening temperature 101·6°. Slight diarrhœa occurred during April 6th, after which convalescence proceeded satisfactorily. During the whole attack there was complete absence of coryza, sneezing, cough, or bronchial trouble.

Remarks.—The length of time between the attacks (rather more than ten weeks) precludes the idea of any relapse. The epidemic was at its height during my first attack, and, as far as I am aware, I had not been brought into contact with cases of influenza for many days before the second attack occurred. The above facts support the statements of Dr. Symes Thompson in his Gresham lectures—namely, first, that one attack gives no protection from another; secondly, that to sneeze was in one respect strong evidence of the freedom of the person sneezing from true "influenza."

Braintree.

SCARBOROUGH HOSPITAL AND DISPENSARY.—The annual report for 1889 shows a considerable expansion in the work done, and also of additional public financial support received. During the year there was an increase of surgical cases treated in the hospital, and the house surgeons' visits to patients in their own homes were largely in excess of the previous year. The expenditure had been more, but the income was adequate to meet it. The site for the proposed new hospital had not yet been secured.

WORCESTER INFIRMARY.—The annual report for 1889 shows that 1219 patients were admitted during the year. The daily average was 85·71, and the cost per bed £43 10*s.* 4*d.* The deficiency of income to meet expenditure had necessitated the sale of upwards of £1000 of funded capital, but there remained of that capital at the close of the year the sum of £49,341 2*s.* 4*d.* With the view of improving the income, it was resolved to sell out of the funded property a further sum, equal to £25,000.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum propriας collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. THOMAS'S HOSPITAL.

CASES OF ANEURYSM OF THE LOWER EXTREMITIES.

(Under the care of Mr. SYDNEY JONES.)

WE publish this week three cases of aneurysm of arteries of the lower extremities, and each case presents some feature of interest. In the first of these, a popliteal aneurysm which was of recent formation, the condition of the patient permitted of his undergoing digital compression of the femoral artery in the groin, and it is remarkable for the number of times that pulsation recurred after firm consolidation of the contents of the aneurysmal sac had apparently been obtained. The patient was very tolerant of the compression, which was carried out by relays of dressers, without the administration of an anæsthetic. The earlier history of the second case is noteworthy, as records of aneurysms in both popliteal spaces are few; but when the condition necessary for the development of an aneurysm is present, there seems no reason why it should not develop as readily on both sides as on one side. It is, however, to the development of another pulsating swelling in the right popliteal space, the site of one of the cured aneurysms, to which special attention will be directed. When this was incised, on the failure of other methods of treatment, there does not appear to have been any necessity to ligature any communicating artery, and the plugging of the cavity sufficed to prevent hæmorrhage, nor did bleeding occur after the onset of suppuration. Traumatic aneurysm of one of the arteries below the knee, the result of injury from the fractured end of one of the bones, is a complication of fracture of which the third case affords an example. Of great rarity, the treatment of this form of aneurysm has excited much discussion in the past, and Barwell[1] gives a series, chiefly from Poncet,[2] which shows the following result:—Ligature of the femoral artery—five cured, one died; of the tibial artery above—three cured, one died; of the peroneal two, cured; compression applied in the wound two, died; of the main artery seven, cured. The treatment by compression is therefore by far the most successful; but it must be recollected that some cases of this kind have got well spontaneously.[3] It was not certain that the wound of the leg rendered the fracture compound; at the time of the development of the aneurysm it had quite healed, and there was no suppuration. In most of the recorded cases where the tibial arteries have been the ones injured there has been delay in the union of the bones; but in this case consolidation of the fracture progressed satisfactorily. Mr. Sydney Jones, however, considered the other evidence strongly in favour of wound of the anterior tibial artery. Mathelin[4] treated a case of similar character recently, in which a pulsating swelling of the anterior tibial artery developed on the tenth day, and was cured by compression of the femoral artery at the groin, after which union was but slightly delayed. For the report of these cases we are indebted to Mr. E. Solly, surgical registrar.

CASE 1. *Popliteal aneurysm; digital compression; cure.*—H. M——, a clerk, aged thirty-one, was admitted on Nov. 13th, 1888, with an aneurysm of the right popliteal artery. There was no history of strain or other injury, but there was a distinct history of syphilis (chancre followed by iritis &c.), which yielded to treatment nine years before admission. He had had no symptoms until a fortnight before admission, when he suffered from pain and stiffness in the right knee, especially during walking. A few days later "the knee became swollen," and the pain increasing, he consulted a medical man, who sent him to the hospital. On admission, an aneurysm, the size of a duck's egg, was found in the right popliteal space. Pulsation was felt in the posterior tibial artery, but not in the anterior. The arteries generally appeared somewhat thickened. On Nov. 15th digital compression of the common femoral was applied from 10 A.M. to 3 P.M., and from 3.15 P.M. to 7 P.M., three minims of tincture of aconite being administered every six hours; pulsation ceased, the sac became harder and smaller, and several anastomotic vessels could be felt around the knee-joint. Next morning (Nov. 16th) some slight return of pulsation was felt, and pressure was again applied from 4 P.M. till 10 P.M., when pulsation had again ceased. On Nov. 17th slight pulsation was again felt in the region of the aneurysm, and pressure was again applied from 8 A.M. to 6 P.M.; pulsation had ceased at 4 P.M. On the 18th slight return of pulsation was detected, and pressure was applied from 5 P.M. till 2 A.M.; the pulsation ceased about midnight, and never recurred. No pulsation could be detected in either the anterior or posterior tibial arteries at the ankle, though three anastomotic vessels could be felt, one passing downwards over the sac in the middle line, and one on each side of the limb. The limb was bandaged with wool and flexed at the hip and knee-joint until Nov. 27th, when gentle movement of extension was commenced. By Dec. 5th the limb could be perfectly extended without pain. The aneurysmal sac being firm and contracted without sign of pulsation, on Jan. 3rd, 1889, the patient was discharged wearing an elastic stocking. The movements of the knee-joint were free and painless, and there was no local tenderness. The total duration of the compression was thirty-two hours, made up of four periods of nine, six, ten, and seven hours each.

CASE 2. *Recurrent popliteal aneurysm; incision and evacuation of clot; recovery.*—Wm. C——, a labourer, aged twenty-seven, was admitted on Aug. 7th, 1888. Five years previously an aneurysm of the left popliteal artery had been cured by ligature of the femoral by Mr. Wherry of Cambridge. On Feb. 16th, 1887, he was admitted to the same ward in St. Thomas's, under the care of Mr. Sydney Jones, with an aneurysm of the right popliteal, the size of a hen's egg. Digital compression was applied for twelve hours on two occasions with a week's interval between them, without apparent result. After a few days' rest the superficial femoral was ligatured successfully, and the aneurysm gave no further trouble for over twelve months. On March 9th, 1888, the patient felt a sudden severe pain in the region of the aneurysm, radiating down the leg. These attacks of pain continued with gradually increasing severity until admission, shortly after which they ceased under the influence of rest in bed. On examination, a tumour was found in the popliteal space about 2½ in. long by 2 in. in breadth, tense, semi-elastic, and somewhat movable, especially from side to side, painful on pressure, but with no sense of increased heat; no pulsation could be felt, though the patient stated that it had been present till shortly before his admission. On Aug. 12th an ice-bag was applied to the popliteal space, the limb being slightly flexed and rotated outwards. On the 17th pulsation was detected in the aneurysm, and as it became more distinct during the next day or two, the limb was kept flexed at the hip and knee-joints until August 24th, when flexion was discontinued. Pulsation was still to be detected in the sac, but this gradually became fainter, and had ceased by Sept. 20th, a small collateral vessel being still felt pulsating over the sac. The anterior tibial could not be felt at the ankle, and the posterior tibial only with difficulty. Circumferential measurements of the knee showed a little more than half an inch diminution as compared with similar measurements taken on admission. For about a fortnight more the patient remained in bed, and no change was observed in the aneurysm. He then got up, and though he suffered no pain while up the stiffness of the knee caused much inconvenience, and the sac of the aneurysm did not diminish in size. On Oct. 11th, therefore, a trocar was inserted, and a few drops of coloured fluid escaped. The sac was then cut down upon in the middle line and laid open, and the soft red clot and fibrinous material with which it was filled evacuated. During the dissection to expose the sac the popliteal vein was seen passing down lying immediately over the aneurysmal sac. After evacuation the sac was plugged with iodoform gauze, and the limb placed on a MacIntyre splint. Some suppuration occurred under the plugging, and in spite of repeated

[1] Encyclopædia of Surgery, vol. iii., p. 165.
[2] Nouveau Diction. de Méd. et Chir., 1872.
[3] Holmes' System of Surgery, vol. iii., p. 85.
[4] Sajous, vol. ii. 1888, p. 255.

dressing and drainage of the wound the knee-joint became involved. On Oct. 24th lateral incisions were made, and a drainage-tube passed across through the knee-joint, a quantity of sero-purulent fluid escaping. After this no complication occurred; the wounds healed somewhat slowly, and it was eventually necessary to employ massage for the knee. On Feb. 21st he was discharged, with all wounds healed, able to walk well without pain, and having good movement in the knee-joint.

CASE 3. *Traumatic aneurysm; digital compression; cure.*—H. S——, a commercial traveller, aged twenty-nine, was admitted at 4 P.M. on Oct. 5th, 1889, having fallen from a van, and sustained a fracture of the right tibia and fibula at the junction of the middle and lower thirds. There was scarcely any displacement of the fragments, but a small wound which had probably been caused by the projection of the upper fragment of the fibula; this, however, was not protruding on admission. An antiseptic dressing (iodoform gauze) was applied over the wound, and the leg was put up in the usual manner in lateral plaster-of-Paris splints the same evening, nothing abnormal other than the fracture having been observed in the condition of the leg or foot. The patient remained fairly comfortable, though the temperature (100° on admission) varied between 99° and 100·6° on the next day. On the 7th, however, he complained of considerable pain and discomfort, the temperature being from 100° to 100·8°; the plaster splint was therefore removed, and the limb was found to be hot and swollen, with some vesication and much ecchymosis around the seat of fracture. A fresh dressing was applied to the wound, from which there had been some slight non-purulent discharge, and a Neville's splint applied to the limb. The temperature remained slightly above normal (from 99° to 100°) till Oct. 11th, when the splint was readjusted with fresh padding; the wound had completely healed. After this the temperature never rose above 99·2°, and the patient appeared to be going on well, till on Oct. 14th a pulsating swelling about an inch and a half in diameter was found over the fibula anteriorly, but towards the outer side of the leg. The aneurysm had a well-marked bruit. Compression of the common femoral artery at once arrested the pulsation. Both the anterior and posterior tibial arteries could be felt at the ankle. On Oct. 16th digital compression of the common femoral was commenced at 9 A.M. and continued till 4 A.M. on the following day (17th), when pulsation had ceased. It recurred, however, at 10 A.M., and compression was applied again till 6 P.M. (eight hours), when the pulsation had ceased. The limb was put up in a Neville's splint again. No further trouble occurred, and by Oct. 31st all swelling and discolouration had subsided; the fragments were in very good position, though union was not very firm. On Nov. 20th the patient was discharged in a plaster-of-Paris splint, with firm union of the fragments and without any deformity of the limb.

HULL ROYAL INFIRMARY.

TWO CASES OF SUPRA-PUBIC LITHOTOMY.

(Under the care of Mr. CRAVEN.)

THESE cases are examples of the supra-pubic operation for the removal of stone from the adult bladder by the more modern method. In the first the enlargement of the prostate prevented the surgeon from resorting to the operation of lithotrity, although the calculus was of very small size. In the second there had been a previous operation by the lateral method, and the general condition of the patient appeared unsatisfactory for operation again by the lateral method. Jacobson[1] gives the reasons why this operation was abandoned some years ago as the following:—"(1) The absence of any means of certainly avoiding the peritoneum; (2) the difficulty of sufficiently and painlessly distending the bladder in pre-anæsthetic days; (3) the absence of antiseptic fluids; (4) the fact that the operation was reserved for very large stones, and that it was often done for such stones after lateral lithotomy had been performed on the same or on the preceding day." We are indebted to Mr. Frank Savery, house surgeon, for the notes of these cases.

CASE 1.—Stephen C——, aged fifty-nine, was admitted on June 25th, 1889. He is an agricultural labourer, and has not been addicted to drink or had any serious illness, but he has had pain over the left kidney for years, but no colic. Since December, 1888, the patient has been occasionally passing gravel, and during that time has had pain in the perineum during micturition; the frequency of micturition has increased, and for some months he has had to get up at night to micturate. About May 20th he passed blood in his urine in considerable quantities for three or four days; the urine looked like blood. The patient looks in perfect health, but he complains of pain in the perineum during and after micturition; none at the end of the penis. He has to get up at night to pass urine generally twice. Urine acid; there is a slight deposit of urates; specific gravity 1022; no albumen, no blood.

On June 27th he was sounded, and a stone felt. The prostate was found to be much enlarged. For this reason Mr. Craven decided to do the high operation rather than the lateral, or lithotrity, although he considered the stone was small.

On July 1st, ether having been administered, Mr. Craven, assisted by Mr. Evans, operated. The bladder was first washed out with boracic acid lotion, about sixteen ounces of the lotion being left in, the catheter removed, and a ligature tied round the penis. An indiarubber bag was next placed in the rectum and distended with ten ounces of water. A skin incision five inches long was made in the middle line, with the lower extremity over the pubes; this was deepened, a few vessels caught in clip forceps, and the bladder exposed. The bladder wall was then incised, a small stone felt, and removed with the index fingers. The peritoneum was not seen during the operation. The bladder was washed out through the wound with an indiarubber tube. This tube was left in the bladder, the end being left long, so as to carry the urine below the bed. A few wire sutures were inserted in the skin incision, but the wound in the bladder was not sutured. The calculus was small and flattened, about the circumference of a halfpenny, and weighing twenty grains.

July 2nd.—Patient rallied well from the operation, and this morning says he feels quite well. Most of the urine has come by the wound, but the patient has passed a little by the penis.

3rd.—Passed more urine by the penis than yesterday.

9th.—No urine passing by the tube, it was left out altogether.

18th.—The patient got up. Temperature normal since July 9th, when it reached 99°.

26th.—The patient was discharged to-day.

CASE 2.—W. S——, aged thirty-three, was admitted on June 28th, 1889. He enjoyed good health until about 1884, when he had trouble with his urine, frequently passed gravel and occasionally blood, and had pain at the end of the penis during micturition. This pain got worse and worse, and in the summer of 1888 he always had considerable pain in the lower part of the abdomen, more especially after micturition. In August, 1888, he passed a calculus the size of a pea. The man was admitted to the infirmary on Sept. 28th, 1888, in an extremely emaciated condition, and worn out with pain. He was sounded and a stone felt. The urine was alkaline, but contained no albumen or pus. On Oct. 8th Mr. Craven performed lateral lithotomy and removed a calculus weighing 340 grains, and consisting of phosphates. The patient made a good recovery without a bad symptom, and was discharged on Nov. 23rd, 1888, but was still very thin, and looked ill.

He was readmitted on June 28th, 1889, and then his general health was in much the same condition as on his discharge. He complained of great pain at the end of the penis during micturition, increased frequency, and the passing of blood in the urine. Urine alkaline, specific gravity 1024, and had deposit of phosphates and pus. On sounding him a stone could easily be felt.

On July 2nd, under ether, Mr. Craven, assisted by Mr. Evans, performed supra-pubic lithotomy. The bladder was first washed out with boracic acid and then about fourteen ounces of lotion left in; a rectal bag was then inserted in the rectum and distended with ten ounces of water. The incision was five inches long in the median line, the lower end being over the pubic bone; the wound was carefully deepened until the bladder wall was exposed; a few vessels were tied, after which an incision of about two inches and a half was made in the bladder wall, and a calculus removed without any difficulty with the forefingers. The bladder was well washed out with warm water, an

[1] Operations of Surgery, p. 845.

indiarubber tube inserted with a long free end, the skin incision closed with wire sutures, and the wound dressed with wood-wool. The stone weighed 360 grains and consisted of phosphates.

July 3rd.—Patient suffered a good deal from shock, but this morning says that he feels fairly comfortable. The urine is passed by the wound.

8th.—Passed some urine by the penis, but most of it comes by the wound. Tube taken out, but reinserted.

12th.—Wound nearly healed; tube left out.

17th.—Most of the urine comes by the urethra, and the wound is nearly healed up.

18th.—A good deal of urine passed by the wound since yesterday.

25th.—No urine passing by the wound. Got up to-day. Appetite good, and he looks much better.

Sent to a convalescent home.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Perforating Ulcer of Duodenum.—Spontaneous Fracture of Urinary Calculi.—Melanotic Epitheliomata of Great Toe and Labium.—Fracture of Patella.—Sacculated Aortic Aneurysms.—Calcareous Cutaneous Nodule.

AN ordinary meeting of this Society was held on April 15th, the President, Dr. Dickinson, in the chair.

Brigade-Surgeon MYERS brought forward a case of Perforating Ulcer of the Duodenum. The patient, a private in the Grenadier Guards, aged twenty-seven, of very healthy physique, was admitted into hospital on Oct. 17th, 1889, suffering from intense pain in the abdomen. On the 16th he was out of barracks on pass, and remained away until his admission. During this period he had been drinking rather freely, and had eaten little. He began to feel pain in the abdomen early in the afternoon of the 17th. He had received no injury, but thought he had strained himself. Physical examination revealed nothing abnormal, and the inguinal and femoral rings were found quite free. The next day symptoms of grave intestinal mischief set in, and the question of exploring the abdomen was considered, but had to be abandoned in consequence of the collapse which rapidly developed, and the patient sank and died seven hours after admission. The necropsy revealed general peritonitis of recent date, and a considerable amount of yellow fluid of fæcal character occupied the peritoneal cavity. On examination of the intestine a perforating ulcer was found on the anterior surface of the duodenum, immediately below the pylorus, through which the intestinal contents had escaped. This case was reported chiefly to draw attention to the causation of duodenal ulcer. According to many authorities, they were usually single, occurred most frequently in the upper part of the duodenum, and were far more prevalent in males than in females (about 10 to 1). One of the chief causes given by Virchow was an arrest of the circulation over a small portion of the intestine and the consequent solvent action of the gastric juice upon it. Sir William Gull, referring to gastric ulcer, attributed it to abrasions of the mucous membrane. He would therefore ask the Society if it did not appear to be a very reasonable proposition to advance that many of these cases of perforating ulcer of the duodenum were due to an accidental abrasion of the mucous membrane by some indigestible substance in its passage through this less movable portion of intestine and by the consequent deleterious action of the gastric juice on the subjacent structures.—The PRESIDENT asked if the patient had been a spirit drinker.—Dr. MONTAGUE MURRAY had seen two similar cases; one occurred in a man aged twenty-eight, and a second in a man of forty-two. Both were situated half an inch from the pyloric valve on the anterior wall of the duodenum, the ulcers were a third of an inch in diameter, and in appearance were like ulcers of the stomach. Both were healthy people, and showed the first symptoms of illness after a hearty meal.—Mr. BRODIE inquired as to the position of the ulcer with reference to the opening of the bile-duct.—Dr. EWART referred to the case of a young female servant aged twenty, who had an ulcer close to the pylorus; it was pyriform in shape, being elongated at one end. In the specimen shown he observed a second small ulcer situated on a ridge close to the first.—Mr. PEEKE RICHARDS asked if there were any real difference between these ulcers and those produced by burns; the latter were usually considered to be produced by nervous influence.—Mr. R. JOHNSTON had searched the records of University College Hospital and had found ninety-three cases of burns, two of which were associated with duodenal ulcer. The first was that of a child who died of broncho-pneumonia on the sixth day after the burn; the ulcer was situated in the first part of the duodenum, and presented the appearance of a digestive lesion, the mucous membrane being destroyed over a much larger area than the deeper structures. In the second case the ulcer was in the lower portion of the second part of the duodenum.—Brigade-Surgeon MYERS, in reply, said that the man was not a spirit drinker. The second lesion referred to was artificially produced. The ulcer was distinctly above the opening of the bile-duct, and he desired especially to emphasise its solitary character.

Mr. HURRY FENWICK read notes of a case of Spontaneous Fracture of Vesical Calculi. The patient, a man aged sixty-eight, had been under the care of Dr. Wilberforce Smith for many years. He had latterly passed quantities of mustard-seed calculi (uric acid). After a course of alkaline waters the calculi grew larger, then broke up and came away in pieces. The apparent value of the treatment was proved, however, to be fallacious. On examination of the fragments it was found that a phosphatic deposit had been formed upon each original stone and had subsequently split off from it. Each stone was the size and shape of a pea; each consisted of three layers—a thin external shell of urate, a middle, friable, phosphatic zone, and a uric-acid nucleus. These had evidently been manufactured, retained, and disrupted in a post-prostatic pouch. Three theories had been framed to account for spontaneous fracture of vesical calculi. 1. Rounded stones (pisiform) were split by the swelling of the peri-nuclear zone as a shell by a bursting charge (Ord). 2. Irregular stones, in which the cortex was gradually abraded by urine changes and violence. 3. The inter-penetration of mycelium (Ord). The case recorded went to substantiate the correctness of the first theory.

Mr. BUCKSTON BROWNE read an account of two cases where Uric-acid Calculi had broken up in the Bladder, in both of which complete and incomplete calculi and fragments became cemented together, in the one case by uric-acid deposit, and in the other by phosphatic matter, resulting in the production of new calculous formations. The first case was that of a man aged seventy, who had suffered from great vesical irritation for some time. On sounding several stones were felt; and, owing to the large amount of prostatic hypertrophy present, it was decided to remove them by supra-pubic lithotomy rather than by lithotrity. Mr. Jonathan Hutchinson had observed that at any rate one objection which could be urged against the operation of lithotrity was that it spoiled so many interesting museum specimens; and certainly the unusual formation of the twelve calculi, or rather twelve calculous masses, which were removed would have been entirely unobserved had lithotrity been resorted to for their removal. They weighed 200 grains, and were composed of uric acid, but their weight did not adequately express their size, because they were full of chambers and irregular spaces. In the middle of the box in which they were exhibited was placed a solid uric-acid calculus, which was probably originally the centre of a laminated uric-acid stone. The other masses appeared to consist of fragments of laminæ, and smaller individual calculi all broken up, and afterwards cemented together. On looking closely at some of the masses it was to be noted that the centres of many of the smaller calculi appeared to have been washed away or dissolved. The probable explanation of the formation of these concretions was that originally the case was one of multiple uric-acid calculi, and that from the loose connexion between the laminæ and from the movements of the body the calculi broke up, and that afterwards the fragments became cemented together by fresh deposits of uric acid. It was evident that the centre of the largest calculus did not explode, as had been suggested by Dr. Ord as an occasional cause of spontaneous fracture of calculi, but from the appearance of some of the smaller stones, and the very peculiar rings of stone on some of the concretions, it seemed not improbable that this was the case of the breaking up of some of the calculi. The second case was one of calculus, the débris of which

weighed 1770 grains, removed by lithotrity. It consisted of numbers of uric-acid calculi as large as cherry stones, more or less spontaneously fractured and cemented together into a vesical mass by phosphatic deposit. The patient, whose age was seventy, passed his first stone in 1865, and off and on for twenty-five years calculi and fragments of calculi came away. In 1880 he was obliged to submit to lithotrity. In 1889 he went to Contrexéville, and while there passed many fragments of uric-acid calculi. When seen in October, 1889, the urine was excessively alkaline, and the bladder habitually retained six ounces of decomposing urine. A calculous mass was found in the bladder, and although very large, it was soft and easily broken up by the lithotrite. Upon examination, the débris was found to consist of numerous uric-acid calculi and broken laminæ and much phosphatic matter. Many of the calculi showed portions of fractured laminæ still adherent to their centres, and the centres were all intact. Dr. Prout taught that the best solvent for, and disintegrator of, urinary calculi was perfectly healthy urine, and in this case the fracture of the calculi was probably not spontaneous—i.e., not due to internal causes, but the formation of the calculi and their subsequent disintegration was due to alternating conditions of healthy and of unhealthy urine for a period of twenty-five years. Since the operation the patient had been carefully dieted, and had not passed a particle of calculous matter. In considering the question of what might be called the non-instrumental fracture of calculi within the body, of which true spontaneous fracture was probably only a variety, he wished to put the following questions to the Society:—1. Did renal calculi ever break in the kidney? 2. Was there a well-authenticated case of fracture of any calculus other than a uric-acid one? 3. Were not the cases in which fracture occurred nearly always those of multiple uric-acid calculi? 4. Did the alkali in the water of many a watering-place really deserve the credit of breaking up and bringing away stones, but rather was not the disintegration of the calculi due to their being bathed by healthy urine, the result of drinking freely of water, and of the fresh air, exercise, and somewhat restricted diet usually imposed upon the frequenters of these health resorts?—Mr. BRUCE CLARKE thought that there was a certain amount of warrant for the assertion that the splitting up of the calculus was due to changes in the nucleus. The same splitting occurred in minerals; often a nucleus such as quartz became infiltrated with iron, arsenic, or antimony, and an oxide or sulphide was deposited in the nucleus, which led to its fracture. These cases occurred almost invariably in elderly individuals, and usually after some change in the urine, as when it became acid after being alkaline, or healthy after being morbid. The fact that in a vast majority of spontaneous fractures no nucleus at all was found was in itself evidence that it became split up. He was not sure that fracture occurred in the kidney, but he had recently seen a case in which he believed that this had happened.—Mr. SHATTOCK asked if the specific gravity of the urine was taken during the later course of the disease. The colloidal basis of the nucleus, which was associated mainly with phosphates, became swollen under altered conditions of the urine, and notably with a change in specific gravity.—Dr. WILBERFORCE SMITH said that the urine presented a low specific gravity, but that with improved health it gradually increased.—Mr. HURRY FENWICK, in reply, said there was on record a case of oxalate of lime calculus, coated with phosphates, which spontaneously fractured into four or five pieces.

Mr. ANTHONY BOWLBY showed a specimen of Melanotic Epithelioma from a woman aged fifty-five, who two years previously noticed the nail of the great toe to be growing black, and after a short time the nail itself came off and left an open sore. Since that time the blackness had spread slowly to the pulp of the toe and to the knuckle. The growth had been painless. The personal and family histories were unimportant. An examination showed that the right great toe was much enlarged; the site of the nail was occupied by an irregular ulcer, with a dark red-brown base and raised edges. The neighbouring skin for a distance of about half an inch was black, but otherwise natural. The rest of the foot was healthy. There were no glandular enlargements or secondary growths. The toe was amputated and examined microscopically. The section showed that the rete Malpighii of the skin for some distance away from the growth was infiltrated with pigment, that the interpapillary processes dipped in more and more as they neared the seat of ulceration, and that at the latter place there was an infiltration of the subepithelial tissues, with columns of large epithelial cells enclosed in an alveolated matrix. The pigment was found in both the cells and the matrix. The case differed from that of melanotic sarcoma in its duration for so long a period as two years, in its early ulceration, in the extensive pigmentation of the neighbouring skin, and in the absence of secondary growth in the glands and in other parts of the body. It differed also microscopically in that its structure was epithelial.—Mr. E. SOLLY exhibited a specimen of melanotic carcinoma of the vulva and other specimens illustrative of the pathology of melanotic tumours. Of those commencing in the skin many were sarcomata of ordinary character, but a few proved to be carcinomata, and many others appeared to be intermediate between the two, possibly consisting of cells which in development had never become differentiated, and could not be said to belong definitely to epiblast or mesoblast; this view had been advanced by Billroth in regard to melanotic mammary tumours, and agreed with Cohnheim's theory of the origin of new growths in that the pigmented cutaneous moles in which these tumours so frequently commenced were obviously due to errors in tissue development. In the eye most melanotic growths appeared to be sarcomata springing from the choroid; but one specimen was exhibited which appeared to be epithelial. In the tumours exhibited, the pigment was present both in the epidermic cells and in the tissues below, as was the case in pigmented moles. Each specimen had been tested for iron by the ferrocyanide test; but in no case had the "Prussian blue" reaction been obtained. All melanotic tumours, whatever their structure, appeared to infect the lymphatic glands and viscera.—Dr. HALE WHITE had exhibited a specimen of primary melanotic carcinoma of the liver which resembled Mr. Bowlby's case in that the pigment was found both in the cells themselves and in the tissues between.—Mr. KANTHACK gave a history of the literature of these growths from the beginning of the century, when they were first described by Hildanus as cancerous melanotic tumours, to the time when Stromeyer first applied to them the term "melanotic sarcoma." He referred to Virchow's classification of them into simple melanosis, melanotic sarcoma, and melanotic cancer, the latter being derived from the second variety by metaplasia. He related a case of what he believed to be melanotic epithelioma springing from the connective tissue of the panniculus adiposus.—Mr. SHATTOCK agreed to the proposed division of melanotic tumours of the skin into those that arose in that structure and those that sprang from beneath it. The central cells of an alveolar sarcoma were really in the position of cancer cells, in that, like them, they lay in dilated lymph spaces. In sections of moles he had seen processes of epithelial cells passing down and dispersing amongst the connective tissue elements, being almost indistinguishable from them; and from such a mixed mesoblastic and epiblastic structure a neoplasm might arise, consisting of a mixed series of new elements—a carcinomatous sarcoma.

Mr. D'ARCY POWER read a communication on the Varying Effects of Violence in producing Fractures. He showed the knee-joints of a man aged twenty-three, who had leaped out of a fifth-floor window and fallen apparently upon his knees on the pavement. As a result of this fall, he sustained, amongst other severe injuries, fractures of both patellæ. Although the injury, so far as could be ascertained, was of exactly the same character in both legs, the results were strikingly dissimilar: for in the right leg the patella was fractured from within, so that the cartilaginous surface suffered severely, whilst the aponeurotic expansion of the quadriceps had escaped rupture; on the left side, however, the force had been so applied that the patella had been split from without inwards, or in an exactly contrary direction. At first sight this difference appeared difficult to explain, but on closer examination he was able to show that the difference was due to the altered direction assumed by the force causing the fracture. In the right knee the fracture was produced by the violent impact of the articular surface of the patella against the unyielding condyle of the femur. On the left side, however, the force had been so applied that the patella acted as a wedge and split the condyle against which it was driven, itself receiving no injury.

Dr. MONTAGUE MURRAY related a case in which four Sacculated Aneurysms were found arising from a dilated Aortic Arch. The specimen was taken from the body of a man aged fifty-eight, formerly a sailor, who died suddenly

from hæmato-pericardium. The aortic arch was dilated and the internal surface much puckered. The lowest aneurysm pointed forwards, two (including both the largest and smallest) backwards, and one to the right. All the aneurysms were small; the capacity of each was two, six, three-quarters, and three drachms respectively. No laminated clot was found in any of them. The hæmorrhage had occurred through a minute hole in the lowest. Two less-defined pouches were found, one on either side of the origin of the great vessels. Only one such case had hitherto been recorded in the Society's Transactions, and Dr. Murray inquired whether the multiple aneurysm of the arch might therefore be considered rare, for on *a priori* grounds the condition should be a common one. He considered syphilis an important factor in the causation of this case, and pointed out that the cases illustrated the usual varieties and positions of aortic aneurysm. Hæmato-pericardium occurring with aortic aneurysm was not, in his experience, always due to rupture of the aneurysm, but sometimes to that of an atheromatous ulcer considerably below the sac.—Brigade-Surgeon MYERS asked on what grounds the case was diagnosed as syphilitic. He thought the extent of aortic disease present, if syphilitic, should be accompanied by signs of syphilis elsewhere.—Dr. MURRAY, in reply, did not mean to imply that syphilis was the only factor in the case; the extreme degree of puckering suggested it, and there were scars in the kidney and spleen.

Mr. J. HUTCHINSON, jun., showed an example of Calcifying Adenoma of the Skin. It was obtained from the forearm of an elderly man. The epithelium over the little tumour was raised and somewhat discoloured. On section it was found to be as hard as bone, somewhat oval in shape, measuring two centimetres across by one centimetre in depth. After decalcifying by hydrochloric acid, sections were made perpendicularly to the surface, and showed a gland-like structure of compressed and calciñed lobules, between which was a good deal of fibrous and areolar tissue, which contained calcareous granules and a few calcareous plates. Here and there the hard part presented a close resemblance to true bone. The lobules referred to could be distinctly seen to be composed of spheroidal or polygonal cells, like those met with in a sebaceous gland, but smaller. Perhaps owing to shrinking during the process of calcification, spaces were formed in the supporting tissue. Here and there large multinucleated cells were seen close to the calcareous lobes, resembling the giant cells of developing bone. These had previously been described by M. Malherbe, who published an account of twelve cases in the Transactions of the International Medical Congress of 1881. M. Malherbe gave the name of calcifying epithelioma to these tumours, and cell-nests could be frequently found in the lobules; but the innocent nature of these growths was wholly against their being included in the class of epitheliomata. The structure in the present case was like that found by Mr. Eve in a case reported in the Pathological Transactions, and was quite different to that met with in ordinary sebaceous cysts which had undergone calcareous degeneration, since there was no cyst wall.

The following card specimens were shown:—

Dr. H. D. ROLLESTON: Separation of Symphysis Pubis.

Mr. SHATTOCK: Necrosis Sicca of Digital Phalanx.

Dr. HEBB: (1) Four Cases of Congenital Heart Disease; (2) Rupture of Left Ventricle; (3) Tumour of Breast.

CLINICAL SOCIETY OF LONDON.

Clinical Cases.—Hepatic Hydatid causing Visceral Displacement—Diffuse Suppurative Peritonitis treated by Laparotomy.

AN ordinary meeting of this Society was held on April 11th, the President, Mr. Christopher Heath, in the chair.

Mr. BILTON POLLARD showed a boy aged six years and a half on whom he had performed Arthrectomy of the Left Knee two years and a half ago for pulpy degeneration of the joint. Recovery resulted, with voluntary movement of the joint through ninety degrees.

Mr. W. H. BENNETT exhibited a man fifty-one years of age from whom a large Sarcomatous Growth had three times been removed from the naso-pharynx. After the first ablation Mr. Holmes published details of the case in the eighth volume of the Clinical Society's Transactions; it consisted then of fibrous tissue with a few spindle cells. In 1874 the growth was freely removed a second time, and was found then to be composed of spindle cells with admixture of oval cells. The material removed from the third operation, which was recently performed in a thorough manner, on examination proved to be composed of spindle and myeloid cells. The points of interest were the long immunity between the removals, the fact that epistaxis was the most prominent symptom, and the change in structure observed in the successive portions removed.

Dr. ARTHUR DAVIES showed two cases of Goitre occurring in sisters aged respectively thirty and twenty-seven. They were born near Barnstaple, and the growth in the elder had existed for fifteen years, and in the younger for twelve. The elder suffered from dyspnœa and dysphagia, but the younger had no uncomfortable symptoms. They stated that one brother was similarly affected.

Mr. CHARTERS S. MONDS sent a case of Impacted Extracapsular Fracture of the Left Femur occurring in a man fifty-eight years of age, who was able to walk after the accident with scarcely perceptible lameness.

Mr. COTES showed a case of Pedunculated Sarcoma of the Groin. The patient, a man aged thirty-two, had suffered from syphilis, with bubo in the groin, and a sarcomatous growth had commenced in the site of the inguinal scar. It now formed a pedunculated mass as large as a goose's egg.

Mr. LAWFORD KNAGGS of Leeds read the details of a case of Hydatid Cyst of the Liver causing serious displacement of the viscera. The patient, a woman aged thirty-six, six years previously began to develop varicose veins on both legs. Four years later she noticed a lump in the epigastrium, which gradually increased. Since then she had had two severe attacks of obstructive jaundice, but with that exception her chief discomfort was shortness of breath. The liver and the cyst occupied an enormous area. The upper border was on a level with the third rib, and the lower limit corresponded to a line drawn diagonally across the abdomen from the right superior iliac spine to the tenth rib on the left side. The heart was displaced beneath the first and second left intercostal spaces, and its apex was between the fourth and fifth ribs in the axilla. To the left of the umbilicus the rounded under surface of a large cyst could be felt. On April 26th 47½ oz. of clear fluid were slowly drawn off through a fine trocar. There was no alteration in the position of the viscera, but the operation was followed by eighteen hours' severe vomiting, œdema of eyelids and nose, scanty and albuminous urine, drowsiness, contracted pupils, and nearly fatal collapse. These symptoms passed away, and on May 1st she was convalescent. On June 9th the cyst had refilled, and harelip pins were passed through the cyst wall and abdominal parietes to secure adhesions, and on June 14th a good-sized trocar was passed through the space included by the pins, and thirty ounces of yellowish green fluid were withdrawn. The trocar was plugged, but fluid oozed by its side into antiseptic wood-wool pads during the night. No troublesome symptoms followed till June 16th, when there were vomiting and a rise of temperature. On the 17th, under ether, the opening was enlarged, the cyst thoroughly washed out, and a large drainage tube inserted. In the evening she was pulseless, but with none of the former symptoms of impeded circulation, and she died eighteen hours after the operation. At the necropsy the liver weighed 7¼ lb. There was an enormous single hydatid cyst, which had probably commenced in the left lobe. It was firmly adherent to the under surface of the diaphragm on the right of the median line, and it was this adhesion that led to the peculiarities of the case. It had evidently been formed when the cyst was small, and as it grew the liver had been pushed and rotated downwards, backwards, and to the right. The liver had accommodated itself to its new position, had completely lost its natural shape, and could not possibly have resumed its natural situation. The cyst wall was a quarter of an inch thick, and the liping membrane lay within loose and detached. No adhesions had been produced by the harelip pins, and there had evidently been an escape of some of the cyst contents into the abdomen, and the coils of intestine lying in the pelvis were inflamed and covered with flakes of lymph. The most important factor in causing death was probably the shock caused by interference with the circulation consequent upon some alteration in position of the heart and great vessels. As the heart was largely supported by the cyst, some effect must have been produced when it completely collapsed. The heart was kept in its

abnormal position by the altered shape and position of the liver and stomach. The latter was adherent to the under surface of the cyst, and much elongated, and lay under the left ribs high up into the thorax. The case was recorded to illustrate the grave conditions to be met in some rare cases of hydatid cyst of the liver. Any energetic plan of treatment in this instance could hardly have failed to be followed by rapidly fatal consequences. The intention had been to diminish the size of the cyst by degrees, but the onset of serious symptoms led to the cyst being opened and irrigated.—The PRESIDENT was disappointed to hear that the suggestion of Mr. Fitzgerald had resulted in failure, and that the needles did not set up peritonitis. With regard to elevation of temperature following tapping, that was not a rare occurrence; any diminution in the bulk of a tumour tended to send up the temperature; it was indeed remarkable that a similar result did not follow the tapping on the second occasion.—Mr. HOWSE had never found it necessary to fix a hydatid cyst to the parietes; it usually bulged forward to such an extent and pressed into the wound that stitches were unnecessary; it was quite sufficient to leave it for a day or two in contact with the edges of the wound. His experience of needles was that they produced more irritation than they did good. He had not seen rise of temperature follow simple reduction of the bulk of a cyst. In one which he punctured without an anæsthetic the patient gave a violent forward movement at the time and a considerable amount of fluid was, he believed, expelled into the peritoneum. A rise of temperature followed, accompanied by an erythematous rash.—Mr. BARKER did not think it necessary to use pins. The first case of the kind which he had to deal with was one with a large cyst bulging forward; he stitched it to the skin, packed the edges of the wound with gauze, and in a few days it had united to the abdominal wall. It was then opened and drained, and it closed well. If the cyst were near the abdominal wall it could easily be reached by incision, whereas if it were not in contact disaster might follow the use of pins. Where the cyst wall was very thick and did not shrink, the subsequent treatment became difficult.—Mr. VOELCKER asked if any urticarial eruption had been observed in the case the authors had related. In six cases he had seen at the Hospital for Sick Children, three presented an urticarial rash, two after tapping and one after operation. Hilton Fagge, who had remarked on this sequence, suggested that it was due to the escape of fluid into the peritoneum, but one of the cases he referred to did not develop the rash till ten days after the operation.—Mr. BILTON POLLARD had seen several cases do well without the use of needles; the cyst was either stitched to the parietes or the wound was simply stuffed. — Dr. BRADFORD had seen marked fever follow aspiration in one case, and later urticaria developed; at a second aspiration the fluid was found to contain many leucocytes.—Mr. BATTLE inquired as to the rapidity with which the fluid was emptied from the cyst. He thought it wiser, as a rule, to use a very small cannula.—Dr. ANGEL MONEY said that urticaria had been artificially produced in animals by the injection of hydatid fluid, and recently it had been asserted that all urticaria was due to infection of the peritoneum. — Mr. KNAGGS, in reply, said that the constitutional condition of the patient rendered it advisable to gradually reduce the cyst by tapping. The finest hydrocele trocar was used, and the fluid drained away very slowly. He felt sure the pins had not altogether missed the cyst wall.

Mr. HAWKINS-AMBLER of Kirkburton and Mr. L. KNAGGS then communicated a case of Acute Diffuse Suppurative Peritonitis successfully treated by laparotomy and drainage, but without irrigation. A boy aged nine had symptoms of intestinal obstruction upon which peritonitis supervened. On the second day after the onset of urgent symptoms laparotomy was performed and the abdomen explored. The intestines on the surface were glued together with yellow lymph. The obstruction was found to be due to a kink in the small intestine, which was adherent at the bottom of Douglas's pouch. As the adhesions were being separated with the finger an abscess cavity was opened, and a quantity of very fetid pus escaped. A glass drainage-tube was then passed into the right lumbar hollow, and several ounces of pus (not fetid) were ejected with such force as to shoot almost clear of the operating table. There was no collection in the left lumbar hollow, but a thin layer of pus was present in the folds of the mesentery. A drainage-tube was placed in Douglas's pouch and the wound closed, the operation being concluded as rapidly as possible. After an anxious twenty-four hours the boy began to rally, the bowels were freely opened, the distension disappeared, and the general progress was all that could be desired; but at the end of a fortnight he grew worse, and a large flat doughy tumour developed in the neighbourhood of the umbilicus, with pyrexia, tympanites, scanty urine, and rapidly increasing pulse. These symptoms gradually disappeared simultaneously with the discharge of a considerable quantity of sour-smelling pus from the drainage-tube; and from this time progress was uninterrupted. The sinus was quite healed in about five weeks, and the boy was shown at the Leeds and West Riding Medico-Chirurgical Society, on March 7th, 1890 (ten months after the operation), looking the picture of robust health, and with nothing beyond the scar to show that he had had any abdominal trouble. The bowels were acting regularly and well. Attention was drawn to the fact that the abdomen had not been washed out. The operation was performed under exceptional difficulties in the country, and with only dirty tank rain water available, and without apparatus that could be adapted for washing out. Though this omission might be criticised as bad surgery, yet the result went to prove that washing out was not so absolutely essential as had been imagined. This was just one of those cases in which careful cleansing of the peritoneum had hitherto been regarded as necessary to ensure success. The authors believed that had thorough irrigation been attempted the boy would have died; the extra manipulation of the intestines which were so distended as to make the introduction of a finger a matter of difficulty, would have so added to the shock that the scale would have been turned against the patient.—The PRESIDENT remarked on the gradual change of opinion which had taken place with regard to irrigation. A short time ago it was maintained that, if the fluid used for irrigation did not contain an antiseptic, a wrong was done to the patient. Now it was held by many that washing with simple water was sufficient. The authors, indeed, appeared to suggest that it was unnecessary to wash out at all.—Mr. BARKER would suggest a possible cause for the illness, as he thought he had seen an analogous case. A boy, aged four, was admitted under his care who had been vomiting for a week. The cause of the obstruction was found at the necropsy to be the kinking of an adherent coil of gut round a caseating gland in the pelvis. As to irrigation of the abdomen, he thought it should be used in a limited way. He demurred to the statement that it depressed the vital powers; anæsthetists had told him that the pulse had been distinctly improved by hot water irrigation. When the peritonitis was limited by adhesions, that part only of the cavity should be washed out in which the inflammatory products lay.—Mr. R. W. PARKER would like to know in what particular class of case irrigation would prove injurious. In the few cases he had practised it, it improved the condition of the patient rather than not. He had washed out empyemas in small children with hot water, and it revived rather than depressed them.—Mr. HOWSE also spoke in favour of irrigation, though he admitted that the cessation of tension and the provision of drainage might be sufficient to secure improvement. The irrigation fluid should be boiled and injected at a certain temperature. He related a case of bruising of the abdomen which had been under his care, and in which a considerable quantity of blood was poured out into the peritoneum. He removed the clot by irrigation, which caused a fall of temperature and the patient recovered. The pulse improved under the irrigation.—Mr. BATTLE said that in a large number of cases of peritonitis it was impossible to determine the cause. He did laparotomy in a case of purulent peritonitis, and no cause could be found; the patient died next day. Post mortem inflammatory swelling of Peyer's patches was found. The father was at the time suffering from pneumonia and the mother from pyæmia. The effect of irrigation on the pulse varied very much. In cases where the peritoneum itself was healthy, such as in those of traumatic lesion, shock was produced by it. In a case of secondary hæmorrhage from a stump after the removal of an ovarian tumour, it was considered unadvisable on account of the patient's condition to administer an anæsthetic; the pulse was watched during irrigation, and was found to become markedly weaker, and the patient complained of faintness.—Mr. AMBLER, in reply, said that their point was that in a prolonged operation upon an exhausted patient it was not necessary to push irrigation as an essential detail. It was possible that the hot water was absorbed, and thus improved the pulse. Irri-

gation, he thought, enabled one to do without drainage, or if drainage were used, the tube could be dispensed with sooner.—Mr. KNAGGS, in reply, said that the removal of the inflammatory fluid from the peritoneum did away with a considerable amount of danger, for in that fluid micro-organisms could grow and flourish, and their products could accumulate.

MEDICAL SOCIETY OF LONDON.

Debate on the Present Position of Abdominal Surgery.

AN ordinary meeting of this Society was held on April 14th, the President, Mr. Knowsley Thornton, in the chair.

Mr. MEREDITH opened a discussion on the Present Position of Abdominal Surgery by reading the paper on the subject, which will be found in another part of the present issue.

The PRESIDENT pointed out some of the subjects which had been dealt with by Mr. Meredith, upon which he hoped those who took part in the discussion would throw special light. He thought that advantage would be gained if the speakers would give details of their methods of performing hysterectomy, of their experience of the occurrence of menstruation after ovariotomy, and of the ultimate history of oöphorectomy. He likewise hoped they would furnish data for forming an early diagnosis of ectopic gestation, would discuss the relative merits of Porro's operation as against the new method of performing Cæsarean section; the advisability of complete closure of the gall-bladder; the relative advantages of cholecystotomy and cholecystectomy; the removal of stones from the bile-ducts by incision and suture; the advisability of removing the kidney for hydronephrosis; the early diagnosis of calculus and tubercle and the exact localisation of the pain as to side in each case; the ultimate results of drainage of a suppurating kidney; the ultimate results after recovery from splenectomy; and the data for early diagnosis of diseases of the pancreas.

Dr. GRIFFITH of Swansea said that there were ten important points to be considered and attended to (in fact, ten commandments to obey) in the treatment of surgical wounds—namely, to arrest hæmorrhage; to avoid mechanical irritation; to guard against any sources of infection, contagion, or sepsis; to adjust the wound surfaces and edges evenly, and secure them in apposition by antiseptic sutures or otherwise, the stitches including in cases of abdominal section a wide margin of the peritoneal surfaces; to provide against any necessary drainage (antiseptic); to apply gentle pressure to the parts, to prevent congestion and exudation; to give the most perfect possible rest to the parts; to secure the best possible position to the parts, for the patient's comfort and nature's healing process; to secure for the patient hygienic surroundings, and to attend to the patient's general health. Provided an operation were well planned and skilfully performed, provided these ten commandments were well attended to and judiciously observed, and provided that the patient's health were equal to the emergency of the occasion, the result of the operation must be successful and satisfactory; but if, on the contrary, any of these conditions were neglected, the result might be disastrous. While most surgeons recognised the importance of these conditions taken collectively, but few would agree as to the degree of importance each separately deserved. His experience was limited to fifty-six cases of ovariotomy; three of oöphorectomy in cases of fibroid tumour of the uterus. In all but one—which was performed in pre-Listerian days—Listerism had been rigidly observed, and he had also endeavoured to satisfy the whole of the conditions above referred to. He had met with six deaths, three of which were cases of cancerous disease; a fourth, a huge solid ovarian tumour, the removal of which necessitated division of the colon; the fifth was one of very large ovarian tumour with extensive and firm adhesions, and the bladder was ruptured during the operation; while in the sixth case, death resulted from fatty heart. There were no deaths from peritonitis or septicæmia, and no drainage-tubes were used.

Mr. MAYO ROBSON of Leeds thought that the debate was to be upon the results of abdominal operations taken as a whole, and not a discussion on individual instances of operation. He had read at the Leeds meeting of the British Medical Association a paper on about 200 cases of abdominal section, and he based what remarks he had to make on that series, although during the last eight months he had added considerably to their number. They consisted, besides ovariotomy, of hysterectomy, hepatotomy, nephrectomy, gastrostomy, cholecyst-enterostomy, kelotomy, cholecystotomy, and laparotomy for perforating and tubercular peritonitis and pelvic abscess, as well as for intestinal obstruction. Sixty-one were for ovariotomy, with two deaths and fifty-nine recoveries. The two deaths were apparently from unavoidable causes; one the result of intestinal obstruction coming on at the end of a week, and due to volvulus; the other from exhaustion occurring at the end of the first week after the removal of a suppurating multilocular cyst adherent to all the viscera. Should he have another case of intestinal obstruction following ovariotomy, he would not hesitate to reopen the abdomen to try to remove the cause, as had been done successfully on one occasion at least. It seemed to him that younger surgeons owed a great debt of gratitude to Sir Spencer Wells, Dr. Keith, Mr. Lawson Tait, and other leaders in this branch of surgery, who had not only themselves been successful, but had enabled others to start from their high platform by having the opportunity of studying and observing their practice. So far as he could see, the great secrets of success in abdominal surgery lay in strict cleanliness, in leaving a dry peritoneum, in draining if needful, in washing out if required, in avoiding the soiling of the peritoneum by packing with sponges before opening a septic cavity, in efficient means of arresting hæmorrhage, and in expedition in operating. Under the first head would naturally come the question of antiseptics, and when one saw the names of surgeons equally eminent arrayed on both sides of the question, one naturally came to the conclusion that under circumstances common to all their patients the question was not so important as it might seem, and from what he had seen of the practice of both schools the conclusion he had come to was that strict cleanliness or asepticism as nearly as possible arrived at the same condition as the truest or scientific cleanliness of antisepticism. On the one side we had the dangers of peritoneal irritation, chilling of surface and of viscera, and toxæmia; whilst on the other was the danger of septic peritonitis from microbe contamination. His experience in general surgery had led him to place trust in strict antisepticism, which, however, should be judiciously employed. For instance, if operating in a thoroughly cleaned room or in the country he thought the spray was unnecessary, but in the case of operations performed in a large general hospital, where the absolute purity of the air could not be guaranteed, he felt safer in using the spray; not, however, directed straight at the abdomen, as he had seen it employed, but rather pointed into the air above the region of the operation so as to purify the atmosphere which came into contact with the wound. Thus far he had never seen any harm result from the use of the spray, either in the form of toxæmia, chilling, or irritation, and the results of his experience in ovariotomy and other forms of abdominal surgery would still lead him to continue the practice he had hitherto followed. He observed the usual precaution with regard to cleansing the sponges, hands, and instruments, and in aspeticising the skin of the abdomen. When there was a tendency to pouring out of fluid or to oozing of blood, he preferred to leave in a drainage-tube; but if the operation had been performed antiseptically, there was not the same need for drainage as when antiseptics had not been employed, nor was there the need of so frequently harassing the patient by emptying the drainage-tube every two hours as was the practice of some operators. When he opened a septic cavity in the course of an operation he did not now feel that dread of a soiled peritoneum which he had before adopting Mr. Lawson Tait's plan of freely washing out when necessary, and, as after washing out it was always necessary to drain, he could not see the necessity of employing strong antiseptics. He therefore used either water which had been boiled or solution of boric acid; and if there was a tendency to oozing of blood the water was used as hot as his hand could bear, the peritoneum being flushed by a syphon apparatus with a firm end. The arrest of parietal hæmorrhage by pressure forceps and of internal oozing by sponge pressure and hot douche effected a great saving of time, ligatures only being used for fair-sized vessels. It was well to be as expeditious as possible, because prolongation of the operation not only meant greater risk from extended manipulations, but a prolongation of the anæsthesia. His abdominal incision was rarely longer than two inches, and in closing it, if there were need for haste, he made the stitches include all the layers of the abdo-

minal wall; but otherwise he preferred to stitch the aponeurotic and cutaneous layers separately, as he believed the latter plan gave a stronger and firmer cicatrix. Over the wound he applied a single layer of gauze moistened with an antiseptic solution, and over this a dry dressing of salufer wool. As to after-treatment, he did not employ the catheter unless absolutely necessary; he avoided opium if possible during the first twenty-four hours; he gave barley water or plain water occasionally; but in persistent vomiting he fed entirely per rectum, and if it lasted beyond twenty-four hours, or if distension were present, he gave an effervescent saline with twenty or thirty grains of sulphate of magnesia to the dose every two hours until flatus passed or the bowels were moved; this he had found efficient and harmless. He had never met with high temperature, and had never to use an ice-cap. As a general surgeon he felt bound to protest against the idea that abdominal surgery should only be done in special institutions. It had been said that the surroundings of a general hospital were not so favourable to recovery as they were in a special hospital, and that the hands of a general surgeon were necessarily more in contact with septic matter. But he held that the hands of the gynæcological surgeon probably came in contact with more septic matter during vaginal examinations, and in many other ways, than did the hands of the general surgeon who treated his cases antiseptically. The best argument to meet this objection was a reference to statistics, which distinctly proved that ovariotomy could be done as successfully in a general as in a special hospital. Although the three cases of perforative peritonitis on which he had operated had been unsuccessful, he could not help thinking that good results ought to be, and could be, obtained in such cases if diagnosed and treated early. In his cases of perforation of the stomach and bowel a delay of two or three days occurred before operation was resorted to. In future he would thoroughly wash out the abdomen, and if he could find an opening in a reasonable time he would close it; but if not, he would trust to thorough drainage and the efforts of nature to close the perforation. He had operated thirty-four times for disease of the appendages without a death, and he would divide them into two classes: Battey's operation, where the appendages were removed to bring about a physiological effect, and Tait's operation, for the removal of diseased tubes and ovaries. In the latter the results had been extremely satisfactory, whilst in the former they had been equally disappointing; and it would be only under very exceptional circumstances, and when supported by several opinions, that he would remove appendages not diseased. In only one case where he had removed the ovaries and tubes to arrest the growth of uterine myoma had menstruation persisted, and in that case the tumour, which at first had almost disappeared, had again increased, and would require the performance of hysterectomy to bring about a cure, electrolysis having failed to do good. In conclusion, he stated that he always did his best to make a diagnosis, but the more experience he had the more he saw the fallibility of diagnosis, even with the utmost care; and since he knew that with ordinary skill a simple exploratory operation was not attended with serious risk, even if it were found that further treatment could not be followed out, he was guided by the rule "When in doubt, operate," for he had on several occasions completed successfully the removal of a tumour previously considered irremediable, or the washing out and apparent cure of a tubercular peritonitis, which he commenced as a simple exploratory operation.

Mr. JOHN W. TAYLOR, of Birmingham, referring to one of the questions that had been raised respecting the difficulty of diagnosing extra-uterine pregnancy in its early stages, cited two cases in which he had been able to make the diagnosis previously to operation. In both a retro-uterine tumour, possessing all the characters of a distended Fallopian tube, existed, together with signs and symptoms of early pregnancy. On the broad subject of the evening's debate, Mr. Taylor remarked that many of the difficulties and dangers encountered in this work, and not a few of the fatal results sometimes met with, were largely preventable, and suggested that now, when the position of abdominal surgery was assured, and there was, after all, but little room for question and criticism regarding its beneficent action, it might be well to turn our attention to the best means of perfecting our work, as well as the means and ways for its extension. Three points were specially referred to as affecting the results of these operations: 1. The importance of early operation in all cases where the future necessity of operation was clear. 2. Asepsis, mainly considered in its relation to the hospital accommodation and management of cases of abdominal operation. 3. The influence of kidney disease on mortality. Mr. Taylor briefly illustrated the pertinency of these points by reference to recent cases occurring in his practice, and stated that, on carefully reviewing his own work, all his most anxious cases appeared to be affected in one way or another by the factors now brought before the notice of the meeting.

Mr. TREVES first congratulated the author of the paper on the completeness of his review of the subject. Referring to the technical details of hysterectomy, he premised that there could be nothing special about abdominal surgery, nothing peculiar to it that was foreign to the surgery of the rest of the body. If a Herbert Spencer in the future were to write the first principles of surgery, no special chapter would be devoted to that of the abdomen. There was no difference, for instance, in the washing out of the abdomen for suppuration, and the cleansing of the cavity of a simple abscess elsewhere. The actual history of the operation of ovariotomy was very much like that of the common surgery of ordinary tumours. In early days breast tumours were removed by a clumsy kind of clamp; and later, as an improvement, they were transfixed and tied by many ligatures and allowed to slough away; later still they were neatly removed by a clean incision. Practically the same thing had happened with ovarian tumours, and there was nothing new about abdominal surgery in this respect. A certain very remarkable reformation in the mode of treating wounds had rendered possible the application to the abdomen of the common treatment applied to wounds of other parts, as of the scalp or forearm. To apply this to hysterectomy, there were certain cases of uterine fibroids which justified the removal of the tubes and ovaries as well as of the uterus, and in dealing with these cases he regarded them precisely as if they were tumours growing from the back or from the buttock. The bloodvessels going to the mass were easy to find and to ligature; they were mainly the ovarian, the uterine, and the ovarian branch of the vaginal arteries. Having secured these, the ligaments on each side were divided and a V-shaped section of the cervix was made, leaving a kind of flap on each side. When the tumour was removed in this manner, a large gash was made in the peritoneum, and after this was stitched up there remained a closed seam running across the pelvis. He contrasted an operation such as this, based on ordinary surgical principles, with the use of the serre-nœud, which might be described as a barbarous instrument, to be compared only with the clamp in ovariotomy, and like it to be ultimately abandoned. The results he had so far obtained by the above method were admirable. If there were any kind of uterine tumour around which the uncouth serre-nœud could be passed, it could be treated better by the simpler surgical measure he had described. He next referred to cases of extra-uterine pregnancy in which the fœtus was dead, and he held that the placenta and every trace of the sac should be removed. The latter was, as a rule, of recent formation, and was therefore but feebly attached to surrounding parts. He had had three such cases in eighteen months, and he entirely removed the sac, cleaned out and closed the cavity, and all had recovered as quickly as after ordinary ovariotomy. He believed that no case of pancreatic tumour had been operated on intentionally in this country, but he thought that more of these cases would be dealt with if the remarkable paper by Senn on their diagnosis were more generally consulted. He related the case of a man who had an enormous abdomen, which he stated had reached its size in two months. The man was gradually sinking, when it was suggested that the tumour should be looked at. On opening the abdomen an enormous cyst of the pancreas was found and removed, and the patient was at present quite well. He suggested as a subject worthy of consideration the different manner in which different cysts of the abdomen should be dealt, with from the ordinary hydatid to the cyst of an extra-uterine pregnancy, or that of a so-called incomplete ovariotomy where the cyst contained new growth.

Mr. SKENE KEITH said that if a pyosalpinx were removed, recovery usually resulted in a short time; but if the case were a complicated one, like those of ovaritis with salpingitis, convalescence was often delayed for as long as two or three years; many, indeed, at the end of six months were but little if at all better than they were before the operation. This might be partly due to the fact that

women who suffered from diseases of the ovaries or tubes were usually of the fragile type, and many also, as a rule, had been a long time ill and had gradually gone down hill. A long illness often wanted a long convalescence. He agreed with Mr. Treves' remarks about hysterectomy; if that operation were to stand, the stump must be left inside; but he held that in tumours with a very thick solid stump the serre-nœud must be used. He was in the habit of crushing the tissue and thus leaving it in a condition to be tied. Then, again, if a fibroid were so large that it completely opened up the broad ligaments and raised them up beneath the ribs, it was very difficult to treat it in the way Mr. Treves had suggested. As to the remarks which had been made about securing the vessels, he had seen some tumours with twenty or thirty abnormal arteries as large as radials. He thought really that the clamp had been too much abused; it should be remembered that it went out when antiseptics came in. Equally good results would be obtained with it as without it if proper dressing were used in conjunction with it. In ovariotomy it might still be useful if the uterus were prolapsed. One immense advantage of the introduction of Listerism was that it had taught the necessity for thorough cleanliness.

The debate was then adjourned, and will be ropened on Monday next, April 21st, by Mr. Lawson Tait.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, APRIL 2ND.

DR. A. L. GALABIN, PRESIDENT, IN THE CHAIR.

Vaginal Hysterectomy.

DR. CULLINGWORTH read a paper on four cases of Total Extirpation of the Uterus per vaginam: two of columnar-celled carcinoma of the cervix, and two of squamous-celled carcinoma of the portio vaginalis. In three of the cases the patients recovered from the operation; one showed recurrence in eight months. The disease had extended into the body of the uterus in both cases of cervical carcinoma, and the author expressed a doubt whether the tissues above the internal os were respected as frequently as was alleged. Museum specimens were shown where the corpus uteri had been more or less invaded. In the fatal case the patient had a parovarian cyst, situated behind the uterus; this was removed by abdominal section on the same day that the vaginal hysterectomy was performed. Death occurred on the third day, apparently from intestinal paralysis. The paper concluded with some remarks on the diminished mortality of the operation as compared with what it was when Dr. W. Duncan's paper was read in 1885.

Dr. JOHN WILLIAMS said two things must be considered: First, the direction of growth of cancer when it begins in the cervix; and, secondly, the difference in the results obtained after total extirpation of the uterus and supra-vaginal amputation of the cervix. Regarding the direction of growth of cancer of the cervix, it had been maintained that its tendency was to spread outwards towards the parametric tissue, and that it invaded the body of the uterus only in advanced cases. The specimen shown by Dr. Cullingworth went to show that cancer of the cervix had a tendency to grow outwards, and invaded the body of the uterus in the later stages only. The results obtained after total extirpation supported the same view. After supra-vaginal amputation, recurrence took place, not in the stump of the uterus left, but in the cellular tissue around (the exceptions to this were rare); and after total extirpation it occurred, of course, in the same place, and, if statistics of the same period be taken, far more frequently; this might be due to the fact that total extirpation had been performed for the severer cases. He (Dr. Williams) did not think that total extirpation presented any advantages over supra-vaginal amputation.

Dr. WILLIAM DUNCAN agreed with Dr. John Williams that cancer of the cervix spread laterally, and only invaded the body of the uterus in the later stages. Since 1885 he had carefully examined every case of cancer of the uterus he had met with, and in only three could he satisfy himself that the parametric tissue was unaffected and a radical operation advisable. He recommended careful examination of the utero-sacral ligaments per rectum. He asked if this had been done in Dr. Cullingworth's cases. He regarded foreign statistics as practically valueless, inasmuch as total extirpation was performed for other conditions than cancer. He maintained that, in the few cases where any radical operation was called for, the supra-vaginal amputation was the one to be preferred.

Dr. SINCLAIR referred to the fact that the minor operation had been almost unanimously abandoned by the German operators as a point in favour of total extirpation. As the operations were performed almost entirely in the public hospitals, the German reports must be considered fully as reliable as any published. Total extirpation for cancer of the body of the uterus or for cancer of the portio vaginalis gave comparatively good results, owing perhaps to the fact that a clean sweep was made of all the affected tissue at a considerable distance, anatomically if not physiologically, from the disease. Cancer originating in the cervical canal was liable to remain concealed for a longer time than in the body, where it caused pain and discharge, or in the point of the vaginal portion, where it produced a typical hæmorrhage. If the cancer was to spread, it must do so in the parametric structures, but the rule was that the spreading occurred comparatively late in the process of disease, and thus the exceptions, in which the disease spread up and down to an extent which could only be ascertained post operationem, were so numerous that the only safe rule was to perform the major operation as early as possible. The operation was called major, but it was perhaps less dangerous than some of the so-called minor operations, in which the circulation, both hæmic and lymphatic, were left comparatively uninterrupted. His own experience amounted to eighteen cases of total extirpation for cancer. Twelve of these had been performed within the last twelve months, and all were alive and well except one patient, who died of acute septic peritonitis. He gave details of cases of extirpation over two years ago, in which no recurrence had taken place, and the patients remained in very good health.

The discussion was adjourned on the proposal of Dr. Lewers, seconded by Dr. Griffith.

The following specimens were exhibited:—Dr. GODSON: Living Female Child with Three Lower Limbs. Dr. SPENCER: Congenital Hernia. Dr. MACNAUGHTON JONES: Drawing of Central Choroido-Retinal Disease. Dr. CULLINGWORTH: Uterus after Porro's Operation and a Child from a case of Extra-uterine Fœtation. Drs. GALABIN, LEWERS, HERMAN, DAKIN, and CULLINGWORTH: Cancer of the Uterus.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

WEDNESDAY, FEB. 19TH.

MR. JOSEPH WHITE, PRESIDENT, IN THE CHAIR.

Prevention of Abortion.—Dr. HUNTER read a paper on this subject, giving details of several cases in his own practice, where rest, hygienic surroundings, and careful supervision had been successful in terminating a long-continued habit of this kind.

Epidemic Influenza.—Mr. TRESIDDER read notes on cases under his own charge in the General Hospital, and drew attention to the fact that there had been apparently no extension of the disease in that institution by personal contagion.—Dr. BOOBBYER also gave an account of two cases of influenza complicating scarlet fever, in both of which herpes zoster and albuminuria had occurred. These cases were in the general wards of the isolation hospital surrounded by other scarlet fever cases, and yet no extension of the complicating disease had taken place. The returns from factories and workshops, however, showed an extreme rapidity in the spread of influenza among operatives in confined and vitiated atmospheres. Dr. Boobbyer also drew attention to the apparently uniform extension of the present epidemic, notwithstanding the occurrence in its course of extreme meteorological variations. He further said that, as a result of recent inquiries in Nottingham and its neighbourhood, he could not learn that there had been of late any unusual prevalence of sickness among animals, and, with the exception of scarlet fever which had been epidemic in the town for more than six months, there was no undue amount of human zymotic disease existing in Nottingham.

Cancer of the Lung.—Mr. TRESIDDER showed (1) a pathological specimen of this affection. The growth involved the whole of the lower lobe of the right lung, and seemed to have originated there; it had extended into the mediastina, and had involved the walls of the right ventricle and auricle,

there being prominent masses of the growth within the auricle; there was also recent and extensive pericarditis. (2) Organs of a case of Ulcerative Endocarditis. The heart was hypertrophied, and there was endocarditis within the auricle; on the auricular surface of the mitral valve were prominent granulations; there was also an ulcerated surface, at the base of which was a perforation. The spleen and kidneys showed recent infarctions. The patient when first seen was suffering from acute rheumatism, which became complicated thirty-six hours before death with hyperpyrexia, the temperature on three occasions registering 107·6°, 106·4°, and 105° respectively; cold sponging lowered the temperature on two occasions, the last high temperature being registered just before death.

The meeting on March 6th was a clinical evening.

Stricture of Rectum; Puncture of Intestine. — Dr. HANDFORD showed a Malignant Stricture of the Rectum, taken from a woman aged thirty-four. It was associated with a second stricture of the colon, and with multiple polypi of the whole of the large intestine. There were secondary growths in the liver (which weighed seven pounds and a half), and nowhere else. The tympanitic distension of the abdomen was much relieved by puncturing the colon in two places, and drawing off much flatus. A small quantity of liquid fæces sputtered out of the cannula. The patient died about forty-eight hours later from the general disease, but there was no trace of peritonitis. The punctures could not be detected on the inner surface of the abdominal wall, nor was there visible any adhesion, trace of lymph, or cicatrix in the intestine, which was again distended and therefore air-tight.

Bronchiectasis.—Dr. HANDFORD exhibited from the same case a Cylindrical Dilatation of the Branches of the Lower Division of the Left Bronchus. The patient had suffered from cough and abundant purulent sputum for several years. Four months before her death a surgical operation was contemplated, and the question of the phthisical nature of the lung disease was raised. The sputum was carefully searched for tubercle bacilli on two occasions, and none found. Consequently a confident opinion was expressed against the tubercular nature of the lesion, and in favour of bronchiectasis. This was confirmed by the necropsy.

The following cases were shown :—

Dr. HANDFORD: Aortic Aneurysm and Cardiac Disease.

Mr. TRESIDDER: (1) Paralysis of the Third Nerve and Optic Atrophy in a Syphilitic Woman; (2) Tumours of the Thorax, probably Aneurysmal, in a woman aged forty-three.

Mr. ANDERSON read notes on a case of Ovarian Cyst with Twisted Pedicle operated on successfully.

Dr. HANDFORD showed the following specimens: (1) Multiple Aneurysms of the Aorta; (2) Perichondritis of the Larynx, with Subglottic Abscess of Tubercular Origin; (3) Perichondritis the result of Enteric Fever; (4) Tubercular Laryngitis; (5) Œdematous Laryngitis from a Syphilitic Subject.

LEICESTER MEDICAL SOCIETY.

FRIDAY, FEB. 7TH.

DR. COOPER, PRESIDENT, IN THE CHAIR.

Ulcer of the Cornea.—Phthisis, with Pigmentation of the Skin.—Keratitis.—Nephrotomy.

THE chairman proposed a resolution expressing the regret felt by the Society at the loss of its oldest member, Mr. T. Benfield, F.R.C.S., and of sympathy with his widow.

Mr. HODGES showed a patient whom he had treated for Sloughing Ulcer of the Cornea, accompanied by hypopion and iritis, caused by injury. By evacuating the pus and applying the actual (Snell's) cautery the eye was saved.

Dr. MEADOWS showed a case of Addison's Disease.

Dr. POPE showed a man, aged fifty-five, suffering from phthisis, who had marked discolouration of the skin, resembling Addison's disease. He had no vomiting, and was not weaker than might have been expected from the state of his lungs. Dr. Pope also related particulars of a similar case. A patient with chronic phthisis was pigmented, though not so extensively as the former case. At the necropsy the adrenals were found reduced to small sacs containing a little chalky-looking matter. He expressed the opinion that these organs were probably affected in the patient exhibited.

Mr. HODGES read notes of a case of Keratitis Subepithelialis, which is described by Fuchs as "keratitis punctata anterior," and by von Reuss as "keratitis maculosa." He stated that it bore great resemblance to aquo capsulitis, but was unattended by iritis or hypopion. It had been observed to follow acute catarrh, and was especially noticed after influenza, and was most prevalent between December and March.

Mr. FRANKLIN communicated notes of the following case in which he had performed the operation of Nephrotomy. A policeman aged forty, an ex-dragoon, had been a large beer drinker, with no history of gout. Twelve years ago he received a kick on the left loin from a horse, and was laid up for three weeks and passed blood in his urine. Eight years ago he was in bed two weeks with "inflammation of the kidneys," but had no dropsy or hæmaturia. Four years ago he suffered from pain in the left loin and hæmaturia with vomiting, followed by passage of three or four small stones. Similar attacks at intervals of about a year occurred up to the present time. On Oct. 2nd, 1889, he was admitted to the Leicester Infirmary, and stated that fourteen days previously he had pain in the left loin, hæmaturia and vomiting, and passed three small calculi. He said he had passed no urine for seven days. The catheter drew off about one ounce of bright-red fluid. Two days later he had passed only one ounce of bloody urine since the catheter was introduced. He was treated by hot baths, diuretics and jalap powders, and free diaphoresis followed, which gave some relief. Mr. Franklin performed nephrotomy on the left side, and explored the pelvis of the left kidney digitally; no stone was detected. The kidney bleed freely. A large tube was placed in the wound. There was a good deal of hæmorrhage immediately after the operation, necessitating change of dressings. Though no stone was detected, the most extraordinary diuresis commenced immediately after the operation. In the next twenty-four hours 328 ounces of urine were passed by urethra, besides a large quantity that flowed from the wound. On Oct. 9th, 76 oz.; 10th, 88 oz.; 11th, 82 oz. all by urethra. The wound healed well, and the patient left the infirmary in about eight weeks. He subsequently returned suffering from albuminuria, but is now going to a convalescent home.

Mr. DOUGLAS read notes of a somewhat similar case, in which he had performed an operation. A large quantity of blood-stained purulent fluid was evacuated by a free opening, causing the swelling in front of the kidney almost to disappear. There was very profuse hæmorrhage from the kidney, and a large drainage-tube was inserted, the wound being plugged with iodoform gauze. The plug was removed on Jan. 1st, and on the 2nd, the tube being partially occluded, was removed and cleansed. This was followed by severe hæmorrhage, which recurred a few hours later, necessitating the replugging of the wound. The temperature, which fell to normal after the operation, rose again and assumed a hectic character. On the 24th and 25th there was severe hæmorrhage from the wound. On the 26th large clots of blood were passed by the rectum, and the patient died, exhausted, on that day. At the post-mortem the descending colon was found intimately adherent to the anterior surface of the left kidney, and was full of altered blood, but no perforation was discovered. The left kidney weighed 3 lb. 13 oz., and consisted of large suppurating cysts, one of which had been opened at the operation. The right kidney weighed 2 lb. 3 oz. and was in an extreme state of cystic degeneration, hardly any normal structure being visible to the naked eye. The other organs were healthy. Mr. Douglas remarked that, if the condition of the right kidney had been known, probably no operation would have been attempted, as the result, though for a time palliative as regards suffering, probably did not materially prolong the patient's life. One point common to the two cases was the severe hæmorrhage, which is not uncommon in kidney operations; but in the second case it had a strong tendency to recur again and again.—Dr. PRATT, referring to the first case, supposed the total suppression to be due to disease in one kidney and suppression from reflex irritation in the other. He advised that in every case the urea should be estimated, and deprecated operation if the amount of urea passed daily was very small. He also gave the caution, with regard to abdominal palpation

in such cases, that he had known the larger kidney to be the healthy and not the diseased one.

Mr. ROLL exhibited, for Mr. Clarke, a Calculus of peculiar dumb-bell shape, removed by supra-pubic operation.

Dr. POPE showed microscopical specimens from a case of Malignant Endocarditis, showing the micrococci and other distinctive appearances.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

A MEETING of the Pathological Section was held on Feb. 14th.

Rectal Neoplasms.—Dr. C. B. BALL and Dr. J. ALFRED SCOTT gave lantern illustrations of Rectal Neoplasms. Dr. Ball said that the ideas with reference to the causation of fibrous polypi from ordinary internal piles which he had put forward were clinical rather than pathological in their nature. They found ordinary internal piles in the first instance soft and brightly vascular, consisting of loose connective tissue covered with mucous membrane, and containing a large number of veins, and frequently arteries of moderate size. In old-standing piles they found that the connective tissue element had greatly increased, while the vascular element was not at all a noticeable feature, and ultimately the formations became pedunculated.

Columnar-celled Epithelioma of the Lower Jaw.—Dr. E. J. M'WEENEY exhibited a specimen of Columnar-celled Epithelioma of the Lower Jaw, with metastatic deposit in the portal fissure.

A meeting of the Surgical Section was held on Feb. 21st.

Erasion of the Knee-joint.—Mr. LENTAIGNE described the operation of erasion of the knee-joint. The patient had suffered from white swelling of the knee-joint previously to the operation. The case seemed to be suitable for erasion. After laying bare the patella, he removed the whole of the synovial membrane, as well as a mass of tubercular tissue from the crucial ligaments.

A Series of One Hundred Cataract Extractions.—Mr. SWANZY in a paper on this subject described his mode of performing the operation. Quite a narrow coloboma was required to efficiently protect the eye against the danger of secondary iris prolapse in the course of the healing—a danger to which eyes operated on by the simple method were so liable, as it provides a gateway by which the aqueous humour contained in the posterior chamber may escape through the wound, without carrying with it a portion of iris. Mr. Swanzy considers that such an iridectomy is no "mutilation of the iris," but rather a measure which rests upon a sound scientific basis, and which is calculated to protect the eye against a serious danger. After the lens is delivered he strongly recommends searching the wound carefully with an iris forceps for any tag of capsule which may have prolapsed into it, and if any be found it is drawn gently forwards and snipped off with the scissors. The patient's face is bathed with hot water and soap, and the conjunctival sac is washed out with a 1 in 5000 solution of sublimate lotion just before the operation, and the same lotion is used all through. Small bits of lint boiled in the sublimate solution and stored in it are used in place of sponges. The solutions of eserine, cocaine, and atropine are all made with sublimate lotion of the same strength. The dressing consists in a layer of lint previously boiled in sublimate lotion, and wet with it; over this absorbent wool similarly boiled and wet, then a layer of oiled silk protective, and then the bandage. This is not disturbed for forty-eight hours.—Mr. STORY characterised the results obtained in this series as admirable, even if the cases forming it had been selected. He agreed with Mr. Swanzy as to iridectomy forming part of the operation for cataract, being of opinion that it facilitated the removal of the lens, and prevented the danger of prolapse of the iris. In St. Mark's Hospital the eye was washed with a solution of hydro-naphthol as the antiseptic, and the operation was performed under cocaine.—Mr. FITZGERALD did not make his incision quite the same as Mr. Swanzy's; he made his puncture a little outside the clear cornea, and brought the upper part of the flap well into it. As far as he had gone, the results from the simple operation proved immensely superior to those obtained with iridectomy. Although he had had two cases of prolapse of the iris, he thought there was needless alarm, and that by using the eserine after the operation, by careful bandaging and keeping the patient quiet for twenty-four hours, there need be no apprehension of it.—Mr. MAXWELL would perform iridectomy where the cataract was large and hard, but would dispense with it where the cataract was soft and small.—Mr. SWANZY stated that the cases were not selected, but related to all those in which he had operated to the end of 1888. His classification of results was in accordance with the handy conventional method of recording them as adopted by Professor Knapp and others—viz.: "no improvement," 2; "moderate," 5; and "good," 93 per cent. As to Mr. Fitzgerald's operation being, or having been, identical with his own, perhaps it was so far as the position of the incision in the margin of the cornea went; but he was not quite sure that it was in respect of the minute coloboma, or the particular care taken in respect of the capsule, which he regarded as a vital matter. He did not think iridectomy depended on whether the cataract was soft or hard, whether the patient was going to get a prolapse of the iris or not, but whether the wound would properly heal and remain healed by primary union and without rupture.

Notices of Books.

Klinik der Verdauungskrankheiten. Von Dr. C. A. EWALD. II. Krankheiten des Magens. Zweite Auflage. Berlin: A. Hirschwald. 1889.—The need that has been felt for a work upon diseases of the stomach, and the satisfactory manner in which this monograph by Professor Ewald fulfilled that need, are shown by the fact that a second edition has been called for within a year of its original publication. The subject is one to which the author has devoted much attention, and his previous contributions to the physiology and pathology of digestion will have excited pleasant anticipations of a record of his systematised clinical experience. Nor will anyone who studies this volume be disappointed. He will find the subject treated in the most highly scientific as well as in the most practical manner, whilst he will be considerably enlightened upon the extent to which the domain of functional dyspepsia is being encroached upon by conditions of proved organic lesion. As an evidence of the new standpoint which will have to be taken by the physician in dealing with gastric disorders may be instanced the application to clinical diagnosis of the methods of estimation of the degree of acidity and the peptonising capacity of the gastric juice, subjects which receive the most ample treatment in the opening chapters of this monograph. Stenosis and strictures of the cardiac and then of the pyloric orifices are next dealt with, the fifth lecture being devoted to cancer of the stomach. The pathology of gastric ulcer is shown to be still undetermined, although the discovery of the fact of hyper-acidity in the majority of cases has been an important and suggestive contribution. It seems, however, obvious that the causes of this lesion are more varied than has been generally supposed. In the treatment of gastric ulcer, the foremost place is given to the practice of giving the organ complete rest, as long since advocated in this country by Dr. Wilson Fox and Sir W. B. Foster; whilst, for further treatment, Carlsbad water and, medicinally, albuminate of iron, bismuth, &c., are indicated; but the chief importance is naturally attached to careful dieting. Chronic gastric catarrh receives a considerable amount of attention at the hands of the author, who demonstrates the changes taking place in the secreting structures in this disease, which obviously comprises many cases of "dyspepsia." In treatment, much value is placed upon the practice of irrigation of the stomach, but due attention is given to medicinal measures. The neuroses of the stomach are divided into—(1) irritative conditions (sensory, secretory, motor); (2) depressed conditions; (3) mixed forms—i.e., neurasthenia, gastro-intestinalis (dyspepsia nervosa);

(4) reflex neuroses. It is here that we find the description of the varied conditions of dyspepsia. The monograph is one which fills a place in literature, for it is many years since the subject was exhaustively treated, and Professor Ewald has aimed at bringing his study of it up to date. We would commend it to the notice of the New Sydenham Society as being a work which would be of great value to the English practitioner.

A Text-book of Organic Chemistry. By A. BERNTHSEN, Ph.D., Director of the Scientific Department in the Chief Laboratory of the Baden Aniline and Alkali Manufactory, Ludwigshafen-am-Rhein, formerly Professor of Chemistry in the University of Heidelberg. Translated by GEORGE MCGOWAN, Ph.D., Demonstrator of Chemistry, University College of North Wales, Bangor. London: Blackie and Son. 1889.—Dr. Bernthsen's excellent treatise has been admirably translated by Dr. McGowan, and a very useful addition has been made to the English scientific student's library. Of course, the book does not compete or interfere with the value of Beilstein's enormous and invaluable "Handbuch" still in course of republication, or with several of the other larger treatises; but neither, on the other hand, is it a mere flimsy sketch. Its 544 well-printed but closely-filled pages contain a good synopsis of that immense branch of science still for convenience called Organic Chemistry. As far as we have tested, it is accurate, and it is certainly sensible in arrangement and lucid in style. Molecular structure and the classification founded upon it are so essential to modern organic chemistry that many compounds of no present utility are necessarily, in virtue of their constitution, included in the scope of a book like this, and there is in consequence the less room to spare for the detailed description of compounds of practical importance. But this cannot be helped, and the unavoidable defect of want of detail does not diminish our gratitude to the author who has given us so good a book. The divisions of the work are pretty much on old lines. First, we have thirty-two pages of introduction, including qualitative and quantitative analysis, vapour densities, the use of physical constants, and the like. In proportion to the rest of the work this introduction appears somewhat meagre, for physical methods are of daily increasing importance, and in this respect the book compares badly with that of Professor Forster Morley, in which the physical sections are excellent. Then comes Class I., the methane derivatives, under which heading are included all the classified compounds of the so-called open-chain series. They are divided into fourteen sections, beginning of course with hydrocarbons, after which follow substitution compounds, alcohols, alcoholic derivatives, the acid and basic series, and so on. The arrangement is similar to but not identical with that of Beilstein, and is clear and convenient. Much theoretical matter is interspersed as occasions arise, and in this way the book has to some extent the inductive character which the author claims for it. Class II. consists of closed-chain compounds, starting from benzene. There is, however, a preliminary section in which furfuran, thiophen, and pyrrol, the four carbon closed chain compounds now becoming intelligible as well as important, are clearly and well described. The still numerous unclassified compounds receive, of course, but scant notice, though they are not altogether omitted.

Archives de Neurologie.—Edited by M. BOURNEVILLE, Vol. XIX., No. 56, March, 1890.—The contents of this number are: 1. Observations on Syringo-myelia, Combined Sclerosis, and Acute Myelitis, by M. Francotte of Liège. 2. A Continuation of a Critical Digest of Italian Views of the Functions of the Brain by M. Jules Soury. In this number the views of Golgi on the minute anatomy of the grey matter is mainly the subject of review. 3. An admirable Clinical Description, noticed more fully in another column, with plates, of a case of Sporadic Cretinism, by M. Bourneville. 4. An account of the Pharmaceutical Preparations of Valerian. 5. Review of Therapeutical Papers, the chief place being given to Mr. Victor Horsley's suggestion to transplant the thyroid of another animal into the human peritoneal cavity in cases of myxœdema. 6. Clinical Review, where Dr. Savage's paper on the Alternation of Neuroses is very fully discussed. One of the most interesting cases referred to is one recorded by Bouveret in the *Lyon Médical*, in which there was embolic softening of both occipital lobes, and in consequence absolute blindness.

Transactions of the Association of American Physicians. Vol. IV. Philadelphia: Printed for the Association. 1889.—This volume contains the record of the proceedings of the fourth session of this Association held at Washington in September, 1889, under the presidency of Dr. Francis Minot, whose address upon the Progress of Medicine during the last Fifty Years opens the volume. There are many highly interesting and important papers contained in its pages. We may indicate those on the Early Stage of General Paralysis, by Dr. C. F. Folson; on Tetany, by Dr. Jas. Stewart and by Dr. J. T. Carpenter, who adduces arguments to refer this affection to septic infection; on Thrombosis of the Cerebral Sinuses and Veins, by Dr. A. Brayton Ball, who furnishes a very full bibliography of this interesting topic; on the Effusion of Chyle and of Chyle-like, Milky, Fatty, and Oily Fluids into the Serous Cavities, by Dr. Sam. C. Busey, whose previous writings on this and allied subjects are well known; on the Relations between Chlorosis, Simple Anæmia, and Pernicious Anæmia, including Leucocythæmia and Hodgkin's Disease, by Dr. F. P. Henry; and one on the Relations of Anæmia to Chlorosis, by Dr. Forcheimer; on Primary Cancer of the Gall-bladder and Bile-ducts, by Dr. J. H. Musser; besides many others of equal value. Appended to the text of each paper is a report of the discussion to which it gave rise. Altogether we have seldom had so thoroughly readable a volume of transactions. There is not a paper which cannot be studied with profit and interest.

Transactions of the American Association of Obstetricians and Gynecologists for the Year 1889. Vol. II.—This volume contains much interesting matter and a good deal of real work. As usual nowadays, abdominal surgery takes the lion's share, but other departments are also represented. Among the papers most worthy of mention are the following: Treatment of the Ruptured Parturient Uterus, with report of two papers, by Dr. Charles Reed; Rectification of Face Presentations, by Dr. Rollin Banta; The Necessity of Recognising Three Planes in the Obstetric Pelvis, by Dr. W. W. Seymour; Ligatures and Sutures, by Dr. Cushing; Peritoneal Effusions, by Dr. W. H. Myers; and Forceps as a means of Rotating the Head, by Dr. Ill.

Pierce Gambit, Chess Papers and Problems. By JAMES PIERCE, M.A., and W. TIMBRELL PIERCE. London: Trübner. Leeds: J. M. Brown. 1888.—In the pages before us a modification of the Vienna game—the Pierce Gambit—is fully described and its merits discussed. Chess players know only too well what a wide latitude the Vienna game permits in the way of variations, and will find some most ingenious positions and suggestive moves detailed in the openings and problems to be found in Messrs. Pierce's work. The severity of the game is mitigated by the introduction of what, for a want of a better word, we must call poems, although we venture to think true votaries of the gambit will esteem Messrs. Pierce's games, which are sterling and good, far more highly than the halting lines and would-be facetious narratives, which are serious blemishes to an otherwise useful book.

THE LANCET.

LONDON: SATURDAY, APRIL 19, 1890.

WE drew attention a short time since to the very large number of sanitary authorities, both urban and rural, that had adopted the system of compulsory notification of infectious diseases under the Act of last session, and we have more than once suggested that it will be an interesting experience to watch the use to which the compulsory powers will be put by authorities that have thus shown their anxiety to have immediate information as to the occurrence in their districts of those diseases which are above all others preventable by efficient sanitary administration. The reports of health officers of those districts which have for some years past been subject to a system of compulsory notification under local Acts have gone to show that to check such diseases a good deal may be done which was impracticable without the notification; and where the sanitary officers have been in constant relation with the school officers, it is clear that the extensive risk of infection which is brought about by the aggregation of children in our elementary schools has been materially minimised by early exclusion from school of children from houses where infectious disease has been known to prevail. But notwithstanding action of this sort and of other measures having a somewhat similar object in view, we have always contended that the main benefit of the system of notification could only be attained in those districts where means of prompt isolation in hospital were available for the first cases of the various spreading diseases which come within the operation of the Acts in question.

An important contribution bearing upon this latter consideration has recently been made by Dr. CAMERON, the newly elected medical officer of health of Leeds. This borough has not yet adopted the Act of 1889, and this although it possesses a certain amount of hospital accommodation. And, with a view of being able to advise the Corporation as to that which would be involved by a proper application of the system of notification to the borough, in so far as isolation is concerned, Dr. CAMERON addressed a circular letter, in which he asked six questions bearing on this point, to the medical officers of health of fifty-six towns where local Acts requiring notification were in force before the passing of the Infectious Diseases (Notification) Act, 1889. The answers received from forty-four towns were such as could be tabulated and made use of, and these we propose briefly to consider. Thirty of the forty-four towns possessed some infectious hospital accommodation, and all the remaining fourteen replied to a second query that they had found the need of such a hospital; much the same answer being received from two others where beds in a general hospital were alone available for sanitary purposes. Then again, ten of the fourteen, having no hospital, have, since the adoption of the Act, already taken steps to provide themselves with an infectious hospital; and Dr. CAMERON gathers generally that a demand for hospital accommodation arises where notification is in force. The fourth question is an important one, bearing as it does upon the amount of accommodation needed. It was whether in towns where a hospital is available or in use there had been occasion to isolate a larger number of patients than before notification came into operation. Twenty-three of the thirty towns having a hospital answered that they had found it necessary to isolate more patients since notification than before; only five of the towns answered in the negative, and these were comparatively small places, including one where the sanitary authority had never made any use at all of their hospital. The general tenor of the majority of answers in this respect is only what might have been anticipated, but it by no means follows that the increase of hospital accommodation found necessary, as an immediate result of notification, will be either permanent or of long duration. It stands to reason that at first the number of cases which should be isolated in the interests of the public will be in excess of those heard of when no notification was in operation; but notification will be to a large extent a failure if it does not tend, by the early isolation of first attacks of infectious disease, to diminish the number of cases, whether they call for measures of public isolation or not. And we imagine that the surest way of reducing the need for a large number of beds in an infectious hospital will be by such prompt, unsparing use of them for first cases occurring in households, schools, and other institutions as will prevent further extension of the diseases in question.

The last question is discussed by Dr. CAMERON at some length. He quotes a suggestion of Dr. THORNE THORNE to the effect that, taking one district with another, one bed per 1000 of the population may be regarded as the amount of permanent means of isolation which sanitary authorities should maintain, and he asks how far his correspondents agree with this. We believe that Dr. THORNE, in making the suggestion, gave utterance to a view which is held generally in the Medical Department of the Local Government Board; but it should be remembered that the rule must necessarily be influenced by the character of the houses in a district as well as by the sanitary circumstances prevailing there. Thirty out of forty-two towns answered that they did not think the standard excessive; two gave no definite reply; and nine affirmed that it was excessive. But the question, as put by Dr. CAMERON, was limited to large manufacturing towns, and, with two exceptions, the nine answers disagreeing with the standard cannot be regarded as having come from towns of this description. Birkenhead, however, was one of the nine dissenting towns; but the isolation hitherto carried out in that borough can have done no more than touch the fringe of the prevalence of infectious diseases, and this because of a lack of beds, which has been a frequent cause of complaint. Of the other of the nine towns referred to, Halifax may be regarded as having some claims to Dr. CAMERON'S definition. But in Halifax a practice is observed which, of all others, goes to deter such isolation as is needed to prevent the spread of infection. The patients who submit to be isolated in the interests of the public are made, either personally or through their relatives, to pay the cost of this

essentially public measure. In short, a charge is made for admission into the hospital, with the very natural result that very little pressure is brought to bear upon the sick to secure their isolation. Some few medical officers of health imply that the standard is "ample," whilst other opinions tend in the direction of its being, if anything, below that which is needed.

So far as the interests of the public are concerned, perhaps the most important indication given in Dr. CAMERON'S report is the demand for means of isolation which the system of compulsory notification is creating. The number of districts having already adopted that system was stated a short time since to have already reached some 700 to 800. But it cannot be necessary that every such district should possess a separate completely equipped establishment for isolation purposes, and we trust that for the purposes of efficiency as well as of economy the principle of combined action between two or more sanitary authorities will be exercised in many parts of the country in providing the needed means of sanitary defence against the spread of infection.

THE subjects handled by Dr. RANSOME in his Milroy lectures are varied and of great interest and importance. Since, as he informs us, "tubercle carries off annually 70,000 persons in the form of phthisis, at ages between fifteen and forty-five, the most useful stages of human existence; kills more than one-third of the people who die, and nearly half between fifteen and thirty-five," the difficult and intricate questions relating to its etiology can hardly too often or too earnestly occupy our attention. Like most authorities at the present day, Dr. RANSOME frankly accepts the doctrines of KOCH, and hence all inquiries into the causation of tuberculosis may now be said to start from the bacillary and contagionist view of the disease. The virus comes to us from without, and finds an entrance first "by the respiratory system, the lungs, pleuræ, bronchial, and tracheal glands; next in frequency to be attacked come the glands about the pharynx, and next after these, probably owing to the swallowing of the sputa, we find the lymphatic apparatus of the walls of the intestine, the isolated agminate follicles, most liable to be the seat of tuberculous ulceration. The œsophagus escapes, ... through the intestinal ulcers, a path is opened to the mesenteric glands, the liver, and the whole of the rest of the body, thereby producing general tuberculosis."

As regards the affinities of tuberculosis and its proper place among microbic diseases, Dr. RANSOME sees analogies between it and such maladies as chronic glanders, actinomycosis, and framboesia, but believes that the true congeners of tubercle are syphilis and leprosy. These two diseases resemble tuberculosis in their chronic source, varying degrees of intensity, and in the nature of their pathological products. How far these three diseases are comparable as regards infectivity must be left to the future to determine. As regards syphilis, there is practical agreement, but the infectivity of leprosy and of tuberculosis raises points of great difficulty. The present drift of opinion is in favour of recognising the possibility of infection in both cases, but our knowledge of the subject lacks definiteness and precision. One of the most assured results of modern bacteriological research has been to enlarge our conceptions of contagion, and to impress upon us the lesson that the specific contagious fevers constitute a type *sui generis* to which we must not expect other contagious diseases to conform. Many of the arguments relied upon to disprove the contagiousness of leprosy and tuberculosis are vitiated by the latent assumption that contagion must always possess those features which characterise it under its most familiar manifestations. The natural history of a disease like rabies should be a warning to us how far one specific virus may differ from another in such a point as length of incubation, and it is reasonable to suppose that other differences, less obvious but equally important, may exist among diseases which are, nevertheless, to be included under the common head of communicable affections.

The geographical distribution of a disease may be expected to throw light upon its etiology, and much has been done in this department within recent years to enlarge our knowledge of tuberculosis. We now know that tubercle is independent of latitude and longitude, of heat and cold, and that it is impossible to point out any constant relation between its prevalence and the coexistence of any of the chief meteorological features which constitute climate. In all the chief cities of the world, in St. Petersburg as in Madrid, in New York as in New Orleans, in Bombay as in Melbourne, tuberculosis claims almost its proportionate quota of victims, and although differences regarding the rate of prevalence exist, they are not explicable upon any general law of climate or geographical position. Rather must we look to social conditions, to density of population, to mode of life, to the presence or absence of a well-regulated hygiene, for any explanation of why tuberculosis is comparatively frequent in one place, comparatively rare in another. Certain cases of almost complete immunity exist, and deserve the closest attention. We know that tuberculosis, though practically coextensive with the distribution of the human race, is exceedingly rare at high altitudes, upon desert or semi-desert plains, and in arctic and subarctic regions. We are still unable to decide positively the *rationale* of this exemption; but it will be found that in all these cases there is sparseness of population, purity of air, and simplicity of life. Whatever additions the future may have in store for us regarding this interesting question, we may safely take it for granted that the most potent cause of tuberculosis is overcrowding and consequent pollution of the air of respiration. Whether these conditions operate by increasing the vigour of growth of the bacillus, or by increasing the receptivity of the soil, cannot be as yet precisely determined, but possibly both points are worthy of attention.

Regarding the hereditary nature of tuberculosis, Dr. RANSOME is disposed to admit the justice of the usual view that the disease is transmissible, but believes that heredity is a less powerful factor in its etiology than has been commonly believed. He discusses the question how heredity operates, and decides in favour of the theory that the parent simply transmits a proclivity to tuberculosis, as a proclivity to typhoid fever or diphtheria has been known to be transmitted. We are inclined to believe that this is hardly an adequate explanation. That a susceptibility to contract one or other of the specific fevers may run in families and be transmitted from one generation to another

is, we believe, unquestionable, but in the case of tuberculosis something more is, at all events in many cases, transmitted—viz., a distinctive type of organism, of which the flat chest is the most obvious outward sign. We are, however, inclined to agree with Dr. RANSOME in his rejection of BAUMGARTEN'S view that the actual virus of tuberculosis is transmitted from parent to child, and that in exceptional cases this virus may remain wholly latent throughout the entire lifetime.

Into the many other interesting questions raised in these lectures, such as the influence of dampness of soil, the dangers from tuberculous meat &c., we cannot now enter, but a word may be said in conclusion regarding Dr. RANSOME'S views upon treatment. He asserts, we believe with truth, that "all attempts hitherto made to discover an anti-bacillary vaccine have signally failed," and that, "if the question were to be addressed to medical men as to what single measure has done most towards the cure of consumption, the answer would be almost unanimous in favour of change of residence."

THE Mansion House Council on the Dwellings of the Poor still continues its good work, though public attention of late has been diverted to a great extent from this subject. The occupations—especially those that come under the sweating system,—rather than the dwellings of the poor, have received the lion's share of notice, criticism, and sympathy. It is now some time since the "bitter cry of outcast London" found an echo in the heart of every true citizen, and the sensation made by the revelations of the witnesses examined before the Commission on the Housing of the Poor has been somewhat obliterated by the still greater sensation produced by the revelation of the Royal Commission on the Sweating System. The evils of the sweating system do not in any way reduce, but, on the contrary, increase the difficulty of housing the poor; and the attention given to the one subject should not in any way cause us to neglect the other. It is fortunate, therefore, that the annual report of the Mansion House Council has just been issued, for this document will help to show how much there is to be done and what great good can be achieved even with small means. The Mansion House Council depends for its existence, it must be borne in mind, on voluntary subscriptions, and its income for the last year amounted to only £1221. Apart from lectures and general propaganda work in sanitary matters, the Council employs qualified inspectors to visit and discover insanitary dwellings. It then avails itself of the Nuisances Removal Act, and persuades some inhabitant of the district to prosecute before a stipendiary magistrate the landlord of some particularly insanitary house. This is a somewhat tedious process, and the Council would like to see the Act so altered that the right of complaint would be extended to anyone, instead of being limited, as at present, to "an inhabitant." Its officers would then be armed with the same facilities as those belonging to the Royal Society for the Prevention of Cruelty to Animals. It certainly does seem most absurd that those who attempt to prevent the cruel consequences of overcrowding and bad sanitation are not so well equipped by the law as those who seek to check the teasing of a cat or the flogging of a weary horse. Nevertheless, offending landlords have been convicted by the action of the Mansion House Council, and the report states that such salutary lessons have had a marked effect upon owners of slum property.

The report before us is a very clear exposition, based on practical experience of the shortcomings of our sanitary machinery. These are due not so much to defects in the law as to the difficulties of putting the law into operation. Thus, for instance, considerable hopes were entertained of the good the County Council would achieve, for this body was not only animated with the greatest possible zeal, but was supposed to act in substitution of a vestry or district board that failed to take proceedings upon the report of its medical officer. In practice, however, it appears that the County Council has no means of ascertaining what premises have been reported upon by medical officers who were nominated previously to April 1st, 1889. The vestries which appoint such officers are, by reason of "their neglect, ignorance, and apathy," the principal cause of most of the evils. To prove this statement, the Mansion House Council relates that one local vestry sent its own medical officer to support, as far as possible, the owners of a veritable plague spot, which was, nevertheless, condemned by the magistrate. Again, in another instance, a vestry resolved to take no action in respect to a report of their medical officer in a case where the water-supply was not disconnected from the drains.

The report undoubtedly sets forth incidentally, but with great force, how defective our system of local government still remains, in spite of the creation of the County Council. Too much yet rests upon the action of the vestries and smaller local bodies. The principal sufferers have no influence whatsoever over the election of these bodies; in fact, no one seems to know or care anything about such elections, and the number of voters is ridiculously small. Under such circumstances, medical officers of health ought to depend on some higher and better constituted authority. The Mansion House Council further urges that their salaries should be augmented so as to render them independent of medical practice. Finally, the number and the technical qualifications of the sanitary inspectors are often altogether insufficient. When we take into consideration that there are only two sanitary inspectors for the district of Poplar, though its population numbers 156,510 inhabitants, how is it to be expected that proper supervision can possibly be exercised? In such cases it is fortunate that private initiative and individual endeavour are able to supplement, in some measure, the efforts of the public authorities. This gives its *raison d'être* to the Mansion House Council and establishes its clear right to public and generous support.

The Mansion House Council has also cause to complain of the ignorance of metropolitan magistrates with regard to the laws affecting sanitation. Last November, we are told, a metropolitan police magistrate, after lengthy adjournments of a case brought forward under the Nuisances Removal Act, refused costs because "these sanitary regulations are new." Yet the Act in question was passed in 1855. On the other hand, Mr. MONTAGUE WILLIAMS, Mr. LUSHINGTON, and others, have shown con-

siderable courage and energy, and when cases came under their jurisdiction, sanitary improvements were readily effected. An immense amount of work, however, still remains to be done, and the attempts at remedy serve principally to show how great and widespread is the grievance. Also, much as we sympathise with the work done by the Mansion House Council, it must be recognised that they have dealt with only half, and that perhaps the easiest half, of the problem. To discover insanitary dwellings, to prosecute those who are legally responsible for this state of insalubrity, is undoubtedly to render good public service; but when overcrowding is checked, when drains are rebuilt, what become of the tenants who were content to live in the insanitary houses? They must either pay an increased rental for their improved tenements, or must go to still further overcrowd some other slum which has escaped the action of the sanitary reformers. Already many workers have to give a third of their total earnings as rent for miserably inadequate lodgings; they cannot be expected to pay more. In dealing with bad drainage and overcrowding, the Mansion House Council are rendering, we repeat, good service; but their efforts will be unavailing unless the other and more complex half of the problem is taken in hand with at least equal energy. The improved artisan and similar dwellings which have been raised benefit, for the most part, others than those who live in and overcrowd the worst slums. The housing of the "residuum" is the real difficulty, and, from the sanitary point of view, the most urgent phase of the subject.

THE Russian Military Medical Department is inquiring into the condition of surgery in the different countries of Europe, and has just published the report drawn up by Professor TAUBER of Warsaw on the English and Scotch schools. Professor TAUBER visited this country in 1885, and went through the chief London hospitals and through those of Edinburgh and Glasgow. He seems to have been much pleased with what he saw and with the kindly reception he met with, especially in Edinburgh. The Medical Faculty of Edinburgh struck him as being on a somewhat higher level, in the scientific departments, than the London schools, and he especially remarks on the high position held by it in the Scotch capital as compared with the non-medical faculties. He gives an account of the different schools he visited and of the eminent surgeons with whom he was brought in contact, and describes many of the operations he saw. He discusses the question why LISTER'S antiseptic method is not adopted universally in LISTER'S own country, for he thinks that there is more opposition to the method in Great Britain than in any country in Europe. First of all, he considers that our hospitals are generally much more hygienic than most continental hospitals, and therefore the improvement wrought by antiseptic treatment is less patent. Secondly, there is a great tendency to distrust new methods, and these, he thinks, are severely criticised by those who do not bow down before the authority of any name, however great. Thirdly, the results obtained by operators who do not use antiseptics, and which are quite equal to those who do, show that it is possible to carry out a truly aseptic treatment without having recourse to any chemical disinfectant, so that in Great Britain, as in many of the German schools, the aseptic system is in the position of a rival to the Listerian or antiseptic. If asked what is the position of British surgeons with regard to recent operative methods, he would certainly admit that a good many daring operations, such as excision of the larynx or spleen, resection of the stomach or intestine, and others, which, even if successful, are so more from a merely operative than from a therapeutic point of view, but which were being frequently performed in German hospitals, were rare in England at the time of his visit. On the other hand, it must be remembered that several important operations on the brain, on the kidney, and on the vertebral canal were devised and primarily performed by British surgeons, and that they have been repeated by numbers of others, so that it would not be correct to consider British surgeons as behind those of other countries in operative methods. The great characteristic of British surgery is, he says, its conservatism—that is to say, its great desire to avoid mutilation; as, for example, witness the small number of amputations in St. Bartholomew's Hospital, where, according to the tables he has copied, there were only 56 out of 5000 surgical patients; whereas in VOLKMANN'S clinic in Halle there were about the same number of major amputations out of 1500 surgical patients. The peculiar tendency of our surgeons to conservatism Professor TAUBER ascribes to the influence of HUNTER'S teaching, according to which operative measures are a last resource, and also to the superior anatomical knowledge of British surgeons, anatomy being with us an applied science in a peculiar degree. He thinks that the regulations of the College of Surgeons regarding its Fellowship—which, by the way, he must have to some extent misunderstood, for he says that from ten to twelve years' study is required—in requiring advanced anatomical and physiological knowledge have been most beneficial in raising the standard of British surgery to the high point which he admits it to occupy. The General Medical Council is credited with a large amount of good influence, and the corporations are said to induce medical men to continue their education long after qualification. Professor TAUBER very greatly approves of the English system of "treating the patient rather than the disease," and of the tendency of general practitioners and clinical professors alike to be doctors first and scientific investigators afterwards—in other words, to make the patient's good the first and chief aim. Nowhere, he remarks, has he seen the clinic turned into a professor's experimental laboratory, as is too much the fashion abroad. When the author attempts to lay before his readers an account of the regulations of the medical corporations and some information about apothecaries or "general practitioners," he seems not unnaturally somewhat bewildered; for our system, or want of system, in matters medical is most anomalous, and sufficiently hard enough for us to understand thoroughly, so that it is not to be expected that a foreigner can grasp it. The great bulk of the book is, however, devoted to pure surgery, an excellent account of the life and work of many prominent British surgeons being given. Had the work been published in some more accessible language than Russian, it would doubtless be perused with great interest by a considerable circle of English readers.

Annotations.

"Ne quid nimis.'

BOGUS DIPLOMA MANUFACTORIES OF THE UNITED STATES.

THE recent action of the authorities of the University of Berlin in refusing recognition of American diplomas in their University calendar has created a strong impression in intelligent and honest circles in the States. Those who are honestly trying to differentiate scientific medicine from quackery, and to raise the standard of medical education there, willingly admit that the legislation of the States is to blame for the scandalous looseness with which the manufacture of diplomas has been carried on, and that it is only by fresh and earnest legislation on the part of all the States that any improvement can be expected, or a higher estimate of United States degrees formed in foreign countries. A very careful article on this subject appears in the *New York Medical Record* of April 5th, by Mr. Austin A. Martin of Boston, Mass. He traces in detail the history of the "wholesale and outrageous manufacture and sale of fraudulent diplomas" by Buchanan which was exposed ten years ago. Buchanan contrived to get hold of effete, but regularly chartered, colleges whose charters had never been annulled, buying the college seals and blank diplomas. He even contrived to get one or two charters for new colleges. So far, the farce was sustained by the law courts. It was not till he was caught by a newspaper man—Mr. John Morris, of the *Philadelphia Record*, to whom Buchanan sold no less than eight diplomas, several M.D.s., a D.C.L., a D.D., an LL.D., &c.,—that he was finally arrested, convicted, and imprisoned. Though Buchanan carried the rascality to the highest pitch, there were inferior hands in the same nefarious trade. Immense numbers of his degrees were sold, especially in Germany, where the American Minister openly denounced them as fraudulent. But the laws of the "triumphant Democracy" seem framed to encourage loose and fraudulent diplomatisation. Mr. Martin shows that before 1874 a Special Charter was necessary in order to form a medical school. In 1874 an Act was passed which provided that seven or more persons could form a corporation under the general laws for any educational, charitable, and religious purposes, for the prosecution of any antiquarian, literary, scientific, medical, artistic, monumental, or musical purposes. Such corporation might assume any name. There was nothing to prevent it issuing diplomas. Several medical schools were formed under this statute. The States must act altogether for the amendment of such legislation. Pending their action, the honest medical schools of the country must combine and denounce all schools which do not require a proper curriculum, and test their candidates by proper examinations. The best Americans will recognise the difficulty that European countries have in sanctioning American diplomas; but we heartily appreciate their efforts to put medical qualifications on a respectable basis, and wish them every success.

COMPULSORY VACCINATION AT HOME AND ABROAD.

IT is somewhat striking that whilst efforts are being made by some persons to abolish compulsory vaccination in England and Wales, where, because of the very existence of that system the present population have lost the dread with which uncontrolled small-pox was formerly viewed, other countries should be moving in precisely the opposite direction. The case of Germany, with its compulsory requirements as to revaccination, and the movement of some of the State Boards in the United States towards compulsion, are well-known. Amongst more recent instances of a similar movement are the cases of one of our colonies—namely, Hong-Kong, and of Italy. In Hong-Kong the Vaccination Ordinance, 1888, aims at making "general" a protection against small-pox, which quarantine measures are stated to have failed in securing, and the official communication as to its working adds that the Chinese are thorough believers in the advantage of this protection, and accept it readily—a fact which is referred to as being the more remarkable inasmuch as the native population, for the most part, altogether reject other applications of Western medical science. Reference to Italy is made in Dr. E. F. Willoughby's recent paper on the Italian Public Health Act of 1889, read before the Society of Medical Officers of Health. It is there stated that "vaccination is henceforth to be compulsory, the gratuitous supply of lymph to the communal medical officers being superintended by the medical officer of each province; no institution for the supply of animal or other lymph, or for public vaccination, may be opened without the licence of the Minister of the Interior, and all such institutions shall be inspected by the medical officer of health." The members of the Royal Commission on Vaccination may find this movement, which goes hand in hand with advancing civilisation, worthy of their notice.

QUALIFICATION FOR HOSPITAL APPOINTMENTS.

WITH reference to the recent decision of the governors of the Bristol General Hospital, the reasons stated by the chairman for the confirmation of the restrictive rules are worthy of the attention of the Irish and Scotch licensing bodies. His statement—in support of which, we may remark, no evidence was adduced—contained two definite inferences. First, that it would be derogatory to the status of the medical staff of the hospital to have on it one holding only a Fellowship of an Irish or Scotch College; secondly, that the tests imposed by these Colleges are not equivalent to those enforced by the London Colleges; and further, that the reason the Irish and Scotch Fellows do not submit to these tests is that they are incapable of reaching the standard of the London College. Such an imputation on their capacity and professional status can hardly pass without some notice on the part of the licensing bodies interested. We must not be taken as endorsing this view of the governors. We still maintain that the true value of the higher diplomas of the various Colleges is sufficiently capable of proof to enable electors to judge of the standard of knowledge of candidates for hospital appointments.

THE FRENCH EXHIBITION IN LONDON.

WE have received the prospectus of the French Exhibition which is to be organised at Earl's Court, where the American, Italian, and Spanish Exhibitions were held during the last three summers. The French Exhibition should certainly excel all its predecessors, although the time for preparation is very short. These exhibitions are of interest from a health point of view. Firstly, they encourage out-of-door entertainments, which are certainly beneficial; secondly, they contain exhibits which relate to medicine, surgery, hygiene, and food-supply. The present Exhibition is to be divided into twelve groups. The first group is to be devoted to vegetable tissues and clothing, and will comprise such subjects as sanitary clothing &c. On such questions there has long waged a war between the exigencies and caprice of fashion and the laws of health and anatomy. The second group, agricultural products, affects the very foundation of health—i.e., food supply. The third group—wines, alcohols, beer, and oil—opens out the temperance

question and the prevalence of adulteration. The fourth group relates to mineralogy, mechanics, electricity, public works, architecture, and building materials, and here, again, the sanitary reformer should find much of special interest. The fifth group deals with exhibits bearing upon medicine, surgery, pharmacy, and chemistry. Dr. Albert Robin is the President, M. Galande the vice-president, and M. Chassaing the general secretary. Nor can we fail to be interested in the sixth group, for this comprises all that concerns education. The tenth group will be devoted to maritime matters, including the important branch of food-supply that comes under the heading of fisheries; the eleventh and twelfth groups are to be reserved for the arts, music, painting, sculpture, &c. The scheme, therefore, of the exhibition is sufficiently comprehensive, and for popular attraction we are promised the arrival of an Arab encampment from the Algerian colonies. We hope the organisers will not neglect the more serious aspects of such exhibitions, and that efforts will be made not only to amuse but also to instruct, bearing in mind that in England everything relating to public health is of genuine interest to the public at large, as well as to medical men and sanitary reformers.

CHOLERA ON A BRITISH VESSEL.

ACCORDING to a telegram from Bordeaux, it appears that the English steamer *Fulford* has been placed in quarantine, owing to two of the crew having died of cholera. The steamer is said to have come from Akyab, British Burmah, with a cargo of rice, and to have left for Europe without knowing its precise destination. It was to have received orders at Port Said; but, although the vessel was not allowed to communicate with land there, it was free to pass into the Mediterranean—a circumstance which implies that the cholera, which appeared on board before sailing from Chittagong, and which was followed by disinfection of the vessel, was no longer prevalent. The subsequent history of the vessel is somewhat obscure. It is stated that the captain, not knowing where to obtain orders, steered successively for Malta and Gibraltar, and was on his way to Falmouth when he was ordered to Bordeaux, where the quarantine was imposed. According to Dr. Proust, the French Inspector-General, it seems quite clear that no further cholera appeared after leaving Burmah, and that the crew had been healthy during the whole voyage. Indeed, the despatch of the vessel to Pauillac by the Bordeaux authorities, and the requirement that she should there undergo a second process of disinfection, was admittedly in deference to public opinion rather than on account of its being required for any medical reasons. These are the kinds of restrictions which some Governments cling to with extraordinary tenacity, and they seem to have one result only—namely, a needless and hence a vexatious detention and interference with commerce. Fortunately, the Egyptian authorities did not, as they formerly would have done, order the vessel to their miserable and unhealthy quarantine stations on the Arabian coast.

UNCLASSIFIED DISEASE.

UPPER ITALY, near the Austrian frontier, has of late been prolific in maladies as yet unrecognised in official health reports or professional manuals. "Nona," until the Board of Health has shown cause for another conclusion, is likely to remain nothing more in medical opinion than an aggravated form of a well-known sequela of influenza. But a new disease, which has not yet received even a provisional name, was believed to have cropped up in the same region—a disease having relations, it was said, with ileo-typhus, but more rapid in its course, and fatal in its issue. Ten cases of it which occurred at Zorzoi di Sovramontone were reported to have died within a few hours. The local prefect, we have just heard, has appointed Drs. Pagello and Murer to make investigations on the spot, and already they have arrived at the conclusion that the disease does not belong to the ileo-typhoid group at all, but that it is a "febbre esantematica migliariforme contagiosa," or a fever of the exanthematous miliariform type, with a contagious character. The rapid course with which it was credited, moreover, becomes, under Drs. Pagello and Murer's investigations, an affair of at least two days in the severer cases, and not of a "few hours." Their report, in its official form, is awaited with interest.

THE DERBY INFIRMARY.

OWING to the recurrence of fever and sickness amongst nurses in the Derby Infirmary, the governing body of that institution have called in the services of Dr. Seaton, medical officer of health for Chelsea and Lecturer on Public Health to St. Thomas's Hospital. The result of Dr. Seaton's investigation is the discovery of a number of very grave defects connected with the general drainage of the buildings, and especially of the older parts of the institution. He advises that an expert in the construction of hospitals and of hospital drainage shall be called in, but he warns the governors that when they receive a detailed account of all that is needed they may find themselves confronted with the question whether it would not be better to provide the town and county of Derby with "a hospital at once healthy and commodious on its present unrivalled site." This latter suggestion deserves the very serious consideration of the governing body. Speaking generally, we are convinced that when hospital buildings get into that state to which Dr. Seaton's description of the older buildings with their rotten floors &c. applies, there is but one satisfactory remedy, and that is reconstruction. The work might well be done piecemeal, a commencement being made with the older buildings; but the scheme for reconstruction should be considered and designed as a whole by a skilled hospital architect, and then any buildings which may at once be newly erected will not be found ill-adapted or ill-placed when further reconstruction is carried out at a later date.

BROMIDE OF GOLD IN EPILEPSY.

FOLLOWING up the observations of Bourneville, Dauge, and Goubert, on the treatment of epilepsy by bromide of gold, several Russian physicians have made trial of this drug in various affections of the nervous system. Professor Merzheëvski, having a very obstinate case of hysteria, which had resisted all the usual remedies, prescribed bromide of gold in quarter-grain doses, and afterwards in half-grain doses, with marked effect, the patient feeling much better and the hysterical attacks becoming far milder and less frequent. Dr. Rozenbach also—having tried bromide of potassium unsuccessfully in half-a-dozen cases of hysteria—ordered bromide of gold; during the first week the attacks became less frequent. Immediately after the drug was commenced the sensibility of the mouth became deadened, but that was the only symptom of bromism which occurred. Again, Dr. Danillo prescribed bromide of gold in eight cases of epilepsy, ordering at first four pills, each containing one-fifth of a grain, and afterwards from twelve to sixteen of these pills per diem. No symptoms of bromism, with the exception of some anæsthesia of the mouth, were produced. In five cases there was more or less improvement; in one of these the fits became reduced in degree to the level of petit mal; in another, where the patient was a girl of fourteen, the fits, which had formerly occurred once or twice a week, were completely stopped, and four months afterwards there had been no return; in three cases the fits became weaker and less

frequent. Over the remaining three of the eight cases the bromide of gold appeared to exert no influence. Dr. Shcherbak has recently published in the *Vrach* an account of some laboratory experiments made with the view of ascertaining the proper dose of bromide of gold, and also of comparing its action with that of other better-known bromides. The drug was administered in three ways—by intravenous injection, by hypodermic injection, and through the œsophageal tube into the stomach. It was found that artificially induced epileptiform attacks could be averted by the intravenous injection of 0·003 gramme per kilogramme of body weight, larger doses being needed in hypodermic administration (viz., 0·09 to 0·16 gramme), whilst by the stomach the attacks were not entirely prevented unless from 0·1 to 0·2 gramme per kilogramme of body weight was employed. On the whole, it appeared that bromide of gold is decidedly more active weight for weight than the more commonly used bromides, probably in the proportion of 10 to 1. Its price is about three shillings for fifteen grains, so that taking one grain as the ordinary dose for an adult, it can hardly be considered an exceptionally expensive drug. It is readily soluble in water, and the solution, if not exposed to light, keeps very well.

MEDICAL QUALIFICATION IN JAMAICA.

ONE of our Jamaica contemporaries, the *Colonial Standard and Jamaica Dispatch*, has a long article in condemnation of a Bill brought in during the present session of the Legislative Council by the Hon. Wellesley Bourke, entitled "The Foreign and Colonial Medical Practitioners' Law." The main enactment objected to in the Bill is the following:—

"That notwithstanding anything in any law to the contrary, it shall be lawful for the holder of any foreign or colonial diploma conferring upon him or her the degree of Doctor of Medicine, and entitling him or her to practice medicine and surgery in the country in which the same was granted, to be registered in this island as a practitioner in medicine or surgery, or both, according to the qualifications named in such diploma," &c.

We entirely agree with our contemporary that this would be not a liberal but a loose piece of legislative work, and would throw Jamaica open to an invasion of ill-educated practitioners who may hold diplomas, but who ought not to hold them. It should be resisted by the profession and the public as unfair to the former and likely to be highly injurious to the latter. Our contemporary points out, in particular, the careless way in which medical degrees are obtained in the United States—an evil which is nowhere more keenly felt than by the best men in the States themselves. Every country in these liberal days is bound to be liberal; but it is not bound to shut its eyes and accept bogus diplomas, or diplomas which represent neither general nor professional education. Mr. Bourke should give to some competent authority in Jamaica the function of deciding whether any given diploma represents a *bonâ-fide* medical education, as we understand it in England and in our colonies. Our contemporary thinks the time has come for recognising good colonial degrees such as those of Canada, of the University of Bishop's College, Queen's College, and M'Gill's College. He says that many Jamaicans study in the Canadian Colleges, and take their degrees, but that they are compelled to come over to England, or rather to the Edinburgh Colleges, which almost invariably, and often a few days after their arrival, grant them the Scotch triple diploma. The writer of the article says he is in a position to know that in recent years not a single Jamaica student who has gone to Edinburgh with the diploma of Bishop's College, or any other recognised Canadian school, has failed to pass the examination and obtain the triple qualification. This seems to show that the Canadian Colleges are at least of equal strictness with the Scottish corporations, and that consequently the subjection of the Canadian diplomates to an expensive journey to Europe is superfluous. It would be different if to gain European diplomas it were necessary to see European practice. But it is not so. Certainly this state of the law requires consideration. The only basis for such legislation as Mr. Bourke proposes seems to be that young Jamaicans coming over to the mother country for medical education show a tendency to remain here, and not to return to Jamaica. Accordingly Mr. Bourke thinks it desirable to "facilitate the settling in the island of qualified medical and surgical practitioners." By all means let legislation secure this end, but let it make sure that it is inviting the really *qualified*, and not what our contemporary calls the "disreputable grist of all the bogus diploma mills from China to Peru, and from Kamschatka to Patagonia." This would be to cruelly mock the public.

LEPROSY IN CYPRUS.

THE report on leprosy in Cyprus furnished to Sir H. Bulwer by Dr. Heidenstam, C.M.G., has been published as a Parliamentary paper. It is an interesting document, and comprises a history of the disease, which appears to have been imported into the island three centuries ago. About the beginning of the present century an attempt was made to establish a leper farm near Nicosia, and this was re-established on the British occupation. Dr. Heidenstam can find no grounds for supporting the theories that leprosy owns a malarial origin, or that it is caused by insanitary surroundings or unwholesome diet, although all these may be favouring factors. His investigations also tend to show that the popular belief (in the island) in the hereditary transmission of the disease is erroneous. On the other hand, he is convinced that leprosy is an inoculable disease, transmitted like syphilis, anthrax, glanders, &c., having an action depending on the individual and his circumstances, and being of slow incubation. This conclusion, which he reported in 1884, has, he says, been confirmed by his subsequent researches, and he gives some striking instances. He closes his report with an emphatic statement of contagiousness being the direct cause of leprosy, and the opinion that its complete eradication may be effected by "immediate, general, and absolute isolation of persons affected with this disease."

HEALTH OF THE METROPOLITAN POLICE.

THE report of the chief surgeon of the Metropolitan Police states the average strength of the force during 1888 to have been 13,617, exclusive of 588 men in the outlying dockyard divisions. The cases of disease and injury among them amounted in the year to 8086, the deaths to 69, and the number constantly sick, inclusive of men on sick leave to 368, being respectively in the ratio of 594·, 5·07, and 27·0 per 1000. In addition to the above, one man of the dockyard division died, making a total of 70 deaths, or 4·93 per 1000, of the entire force. These ratios show an increase in the number of cases, but a very slight fractional decrease in the deaths, which in 1887 were 5·16 per 1000. The proportion of cases is rather higher than in the Household Cavalry; the death-rate of the whole force is 1·06 above the decennial average of the Household Cavalry, and 0·49 per 1000 under that of the Cavalry of the Line; but it is higher also than the death-rate of the Infantry at home in 1887, the last year for which the army returns have been published. Of the cases which occurred during the year, 993, or 12·3 per cent. of the whole, were injuries received on duty; and 1753, or 21·7 per cent., were from the chief diseases of exposure, which are stated as rheumatism,

"chronic and muscular," coryza, bronchitis, and tonsillitis. Of the deaths, 15 were from phthisis, 1 from pulmonary hæmorrhage, 12 from pneumonia, and 4 from bronchitis; thus nearly half of the total mortality was from pulmonary disease. There were 7 deaths from typhoid fever, and 5 from violence; of the latter, three were by accidental drowning. The death which occurred in the dockyard division was suicidal by hanging, at Chatham, and was the only case of suicide in the force. During the year 319 were invalided; of these, 76 were unfit from age, long service, and debility, 81 from rheumatism, 43 from lung disease, and 28 from the direct results of injuries. The amount of sickness varied considerably in the different divisions, ranging between 78 per cent. in the Finsbury and 38 in the Whitehall divisions. Next to Finsbury, Bethnal Green and Southwark furnished the greatest number of cases. There were only 15 men suspended from duty on account of venereal disease, and 9 of these were sent to the Lock Hospital.

AMERICAN QUACKERY BY A "REGULAR" PHYSICIAN.

HOW quacks like to persuade themselves that they are no quacks. A correspondent in an English county sends us an American "circular letter," setting forth the virtues of a remedy for stricture which "beats the record," which is entirely original, and of course very simple. The essential thing is that it discredits all previous discoveries and methods, and lauds the obvious remedy, which is the one clear duty of every sufferer to send money to buy from T. Thatcher Graves, M.D. We are not told the University which is honoured by the graduation of this benefactor of his species. It would do well, however, if it would point out to the gentleman that to send pamphlets over to England setting forth the prodigious merits of his remedy is not the way of a "regular practising physician, whose methods are as far removed from the field of so-called quackery as it is possible to separate them."

THE VACCINATION OF INFANTS.

THE Holborn Board of Guardians have taken exception to the vaccination of recently born children in the City-road Workhouse, and have asked the Local Government Board to institute an inquiry. Children, however, in very early life bear vaccination well, and there is much reason for not allowing them to leave the workhouse unprotected against small-pox. It does not appear that any injury is alleged to have resulted from this practice, and the circumstances which have given rise to this appeal to the Local Government Board are not evident.

THE NERVES OF THE HEART AND UTERUS.

THE recent presentation to the Royal College of Physicians of the beautiful drawings by Perry and West of the late Dr. Lee's dissections of the nerves of the heart and uterus recalls some of the incidents connected with the discussion to which they gave rise. Those who are well acquainted with the anatomical and physiological questions which were at issue now express their surprise that any doubt could have arisen as to the accuracy of Dr. Lee's observations. It rarely happens that men will sacrifice themselves to science with such devotion as Dr. Lee displayed, but if they find some occupation for leisure time to take their thoughts away from the anxieties of practice, and elevate their minds above those petty worries which unoccupied leisure only increases, they are greatly to be envied. If, as the result of such work, they can show some addition, however small, to the sum total of knowledge, they will have a sense of pleasure and a feeling of satisfaction of the most certain character. Dr. Lee, indeed, gave evidence in his life of what can be done by well-employed leisure, and his work shows that the most anxious and fatiguing kind of practice does not preclude from scientific pursuits of the highest importance. The acceptance by the Royal College of Physicians by a unanimous vote of the drawings referred to proves that Dr. Lee's work is appreciated as it deserves, and this is an encouragement to others to add by all means in their power to the advancement of medical science.

THE MULTIPLICATION OF HOSPITALS.

ONE of our contemporaries writes in favour of a hospital for sick gentlewomen of limited means, an establishment for governesses, artists, or typewriters, where ladies might get proper nursing in consideration of provident payments—say, 9*d.* or 1*s.* a week subscribed regularly. The money so raised would, of course, have to be supplemented by subscriptions. We do not see the need of a separate hospital or the feasibility of it. The ladies in question are doubtless entitled to every consideration, but their case can either be met at home or, in bad cases, in the existing hospitals.

THE SANITARY CONDITION OF GREENWICH.

THE Greenwich District Board of Works has received a deputation from the Greenwich Vestry urging it to exercise more fully the powers of which it is possessed for improving the sanitary condition of houses. The deputation asked the board to form committees in each ward of the parish, with a view to the preparation of reports on its sanitary condition. Public sentiment in Greenwich is evidently aroused, and it may be hoped that the staff of officers will be increased, as recommended by the engineer, for the purpose of dealing more effectually than heretofore with the conditions requiring amendment.

HYPODERMIC INJECTIONS OF CHLORODYNE IN DIARRHŒA.

DR. CIMBALI of Rome, writing in the *Riforma Medica*, remarks that in serious forms of certain infectious maladies (as, for example, enteric fever, pneumonia, malaria, &c.), an uncontrollable kind of diarrhœa sometimes occurs, which, besides being a great annoyance to the patient, always aggravates his condition. This profuse diarrhœa, in which the stools amount to twenty or thirty per diem, is usually met with in severe adynamic forms of infectious diseases, and is, moreover, a sign of a highly infectious condition. It is impossible to moderate it either by astringents or by the strongest excitants. In many cases, however, he has successfully employed hypodermic injections of chlorodyne. Fifteen grains of chlorodyne are injected, and if this is insufficient, the injection can be repeated five or six hours later, unless it is one of those diarrhœas which is the immediate forerunner of the death agony. As a rule, however, after the first injection of chlorodyne the number of stools rapidly diminishes, and the patient experiences great relief. Two or three injections during the twenty-four hours suffice to check, or at least to moderate, them.

WATER COMPANIES AND THE PUBLIC.

THE London County Council have not failed to see that the quinquennial reassessment of property in London, which will come into force next year, will largely increase the sum of money which must eventually be paid by the ratepayers when London becomes possessed of the property of the Water Companies. The Council has therefore determined to bring in a Bill to suspend the powers of the Water Companies to increase their charges for water consequent

upon any increase that may be made in the assessment of property in the country. This resolution will commend itself to London ratepayers. The system of charging upon the rateable value of a house is not equitable, seeing that rateable value and the amount of water consumed often bear no relation to each other, and already through the existing arrangements many London householders are paying largely in excess of that which would be a proper amount for the water used. The Vestry of St. James, Westminster, has determined to memorialise Parliament in support of the Council's views, and it may be expected that other local authorities will adopt the same course. The action of the Council makes more necessary than before the acquirement by London of its water-supplies, but the basis of compensation is one which is not now easier of settlement than when the subject was under consideration some years ago.

THE CASE OF JOSEPH MERRICK AT THE LONDON HOSPITAL.

JOSEPH MERRICK, the so-called "Elephant man," died on Friday, the 11th inst. He had been exhibited about the country for some time till the case attracted the attention of the authorities of the London Hospital, who offered him a shelter within their walls. It seems that on Thursday last the man was out in the garden apparently quite well. On Friday, at 1.30 P.M., he was seen for the last time in his room alive, and at 3 P.M. he was discovered dead. Death was probably due to the falling back of the head, which was of enormous weight. Merrick has been the subject of many accounts, especially in American papers, and has been visited by half the celebrities in London. In 1886, as he was being exhibited in the East-end of London, he was seen by Mr. Treves, who henceforward kept him under observation, and who has done much to contribute to the comfort of the unfortunate man. One of the greatest undertakings connected with the "Elephant man" was getting him into a theatre without his being discovered.

MEMORIAL OF PROFESSOR VON VOLKMANN.

STEPS are being taken to erect a permanent memorial of the late Professor von Volkmann in the form of a statue or bust, to be placed in the Halle Surgical Clinic. A committee has been formed to further the project, Dr. Ackermann, Professor von Bergmann, Dr. Hiller, Professor F. Krause, and Dr. Schrader being the medical members on the acting committee. Sir James Paget, Sir Joseph Lister, Sir W. MacCormac, and Sir Spencer Wells have joined the movement, and will be happy to forward contributions from this country.

CASE OF MARTIN v. STUBBS.

WE direct the attention of our readers to the report of Martin *v.* Stubbs, an important medical trial (page 875). We cannot say that the case is in any sense satisfactory. First, it is incomplete. A certificate of death by a medical man called in at the end of the case reflected seriously on the treatment of the medical man called in first. Unfortunately, there was no post-mortem examination, and the coroner, in the exercise of his discretion, refused the request of the practitioner first in attendance to hold an inquest, though Mr. Stubbs, who signed the certificate, attributed death primarily to "an overdose (two teaspoonfuls) given by another doctor," the secondary cause being peritonitis. We have only to refer our readers to the medical evidence to show how weak the case of the defendant was in attributing death in such a case primarily to two drachms of turpentine, qualified as it was by a grain of opium beforehand, and subsequent doses of laudanum. Dr. Stevenson well said that anyone who attributed peritonitis to the administration of turpentine would be going a long way without the evidence afforded by a necropsy. Dr. Christison, in his Dispensatory, says turpentine "is very serviceable for removing tympanitic distension in typhoid fever, peritonitis, and other febrile and abdominal diseases." No doubt it might in such a dose cause strangury. As Dr. Brunton said, a larger or a smaller dose might be safer. Probably, too, the good effect without the risk of strangury might have been obtained by administering the medicine as an enema. But these are details which do not affect the conduct of the practitioner in an urgent case, or justify a brother practitioner in adverse criticism. Even Dr. Brunton, a witness for the defence, could not support the defendant in attributing peritonitis to the turpentine. The jury found for the plaintiff, and awarded damages to the amount of £200, for which judgment was given with costs.

DEATH OF GEORGE CORNELIUS JONSON, L.R.C.P. EDIN., L.S.A. LOND.

WE regret to announce the death of Mr. George Cornelius Jonson, President of the Council of the Royal Medical Benevolent College, Epsom, and chairman of the Medical Benevolent Fund Committee. On Sunday last he succumbed, in his 82nd year, to an attack of apoplexy. The deceased gentleman had been connected with these charities from their foundation, and was distinguished for the care with which he investigated cases of distress, and his wisdom in the administration of aid was well worthy of imitation. He has been described as a perfect chairman—firm, decided, genial, courteous, and a man who never seemed so happy as when doing good.

FOREIGN UNIVERSITY INTELLIGENCE.

Berne.—Dr. Dumont has been appointed *privat-docent* in Surgery.

Bologna.—Dr. Babacci has been recognised as *privat-docent* in Operative Medicine.

Modena.—Dr. Vanni of Florence has been appointed Extraordinary Professor of Pathology.

Munich.—A new Professorship of Clinical Medicine is to be established which will probably be given to Dr. Schech.

Naples.—Dr. Colpi has been recognised as *privat-docent* in Dermatology and Syphilis. Dr. Lussana, Professor of Physiology, has been granted the title of Emeritus Professor.

Pisa.—Professor Rammo of Siena has been appointed Professor of Medical Pathology.

Salamanca.—Don Indalacio Cuesta has been appointed to the Chair of Forensic Medicine.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—

Dr. Michaux, Clinical Professor in the University of Louvain.—Dr. Champenois, formerly Inspecting Surgeon in the French army.—Dr. J. Verevkin, *privat-docent* in Medical Jurisprudence in the Medico-Chirurgical Academy, St. Petersburg.—Señor Don Nicolás Iglesias Crego, Professor of Hygiene in the Medical School of Salamanca.

NUREMBERG, after a respite of several weeks from the influenza, which during its prevalence attacked more than two-thirds of the population, is now suffering from a return of the unwelcome visitant. Last week's official report announces five cases of a very pronounced character.

THE report by Messrs. Crookes, Odling, and Meymott Tidy, on the condition of the metropolitan water-supply for the month of March, shows the results of analyses of 177 samples of water collected during the past month. The whole of the samples examined were found to be clear, bright, and well filtered. Throughout the month of March the condition of the water furnished to the metropolis by the companies taking their supply from the Thames and the Lea has continued to be unexceptionable. The mean proportion of organic carbon present in the Thames-derived samples having been found to be 0·154 part in 100,000 parts of the water, as against a mean of ·160 part in the previous month's supply.

IN the adjourned debate on Mr. Meredith's paper, which will be opened at the Medical Society on Monday next by Mr. Lawson Tait, the following gentlemen from a distance are expected to join:—Dr. Elder (Nottingham), Dr. Thomson (Dublin), Dr. David Newman (Glasgow), Dr. Greig Smith (Bristol), Dr. Thomas Savage and Dr. Malins (Birmingham), and Mr. O'Callaghan (Carlow). The debate will be closed by the President, Mr. Knowsley Thornton, and it is hoped that Dr. Keith, if well enough, and Sir Spencer Wells, if in town, will also take part in the discussion.

THE Queen has granted Richard Sarell, Esq., M.D., M.R.C.P., authority to wear the Insignia of the Order of the Osmanieh of the Third Class, which His Imperial Majesty the Sultan of Turkey has been pleased to confer upon him, in recognition of his services whilst actually and entirely employed beyond Her Majesty's Dominions, as Professor of Clinical Surgery in the Imperial School of Medicine at Constantinople.

THE Nizam of Hyderabad has founded three annual scholarships, each of the value of £300 per annum, to be held in England for four years. Native students of medicine, law, and physical science or engineering will be eligible for the awards. On their return to Hyderabad the services of the recipients are to be placed at the disposal of the Nizam's Government for four years, or until the receipt of permanent employment.

DR. R. W. REID, Regius Professor of Anatomy in the University of Aberdeen, and formerly Lecturer in Anatomy and Demonstrator on the same subject in the School of St. Thomas's Hospital, was presented with a silver salver on Saturday, the 12th inst., which had been subscribed for by his former colleagues in teaching. Mr. Mackellar, who occupied the chair, made the presentation on the part of the subscribers.

IT is understood that, in consequence of the retirement of Lord Dunraven from the chairmanship of the Sweating Committee, Lord Derby has undertaken, in conjunction with Lord Thring, to prepare a draft report, which will be submitted to the committee on their reassembling and be dealt with in the usual way.

WE are asked by Sir Thomas Crawford to invite the attention of the subscribers to the Lewis Memorial Fund to a statement of the account of the committee, which will be found in our advertising columns to-day.

THE ROYAL NATIONAL HOSPITAL, VENTNOR.—The efficiency of the work performed and the utility of this institution are well maintained. The number of in-patients under treatment during the past year was 759, against 735 in 1888. In connexion with the hospital is the Ventnor Relief Fund, for assisting patients leaving the institution.

BRITISH NURSES' ASSOCIATION.

A MEETING of the General Council was held on Friday last at 20, Hanover-street, when Dr. Wynn Westcott presided. The report of the executive committee was read by Dr. Bedford Fenwick, and showed a membership of 862 nurses, consisting mainly of the *élite* of the nursing profession. The report directed the attention of trained nurses to this fact, and urged them to make application for registration as soon as possible. It was proposed to incorporate the Association under the provisions of the Companies or Friendly Societies Acts, as the legal advisers of the Association might deem most advisable. After discussing some business relative to the extension of the work of the Association, it was agreed to establish at the office a nursing exhibition and reading-room for the use of members, to which other nurses should be admitted at a small charge. On the consideration of the rules and regulations for the membership of midwives and monthly nurses, Miss Wood said the executive committee proposed as a basis for discussion that "only those monthly nurses who have fulfilled the conditions required for other nurses, and only those midwives who can show a diploma from a training school for lying-in, or from a recognised obstetric examining body, shall be eligible for membership of the Association." The rules for registration were submitted to the Council, to take effect after June 30th next. Nurses who had been engaged in really good work, notwithstanding the want of previous categorical training, would be admitted up to that date, but thereafter the conditions of membership would become more stringent. On the first rule in this direction being submitted to the Council, an amendment was moved by Mrs. Bedford Fenwick and carried *nem. con.*—viz., that on and after the 1st of July, 1890, every applicant for registration must produce proof that she has for three years or longer been engaged in hospital work, of which the first twelve months shall have been passed in a recognised general hospital containing at least forty beds, except under very special circumstances, when at the discretion of the Registration Board the latter part of the regulation may be waived. The Council had under consideration the formation of a benevolent fund for the purpose of helping nurses in urgent necessity and unable to work. Miss Wood read two letters descriptive of a case of destitution arising from illness of a long and complicated kind, and remarked that it was one of many such cases which came under her observation. It was decided to lay by from the settled income of the Association two pensions of £20 annually, to be given to members who were past work, and, further, that a sum of £50 per annum should be placed at the disposal of the benevolent section of the subcommittee, to be expended at its discretion in assisting members of the Association in want of urgent pecuniary help. A vote of thanks to the chairman, proposed by Mr. Gant, terminated the proceedings.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Chelsea.—This metropolitan parish is estimated to have contained a population of 104,983 at midsummer 1889, and in this estimate the birth-rate and death-rate for the year were 28·2 and 16·8 per 1000 respectively, the latter rate having steadily diminished since 1884, when it stood at 21·8. Respecting the principal zymotic diseases, Dr. Seaton points out that there were no deaths last year from small-pox or typhus; and, comparing the incidence of some of the remaining diseases in Chelsea with that in London as a whole, Chelsea stood well as regards scarlet fever, but occupied much the same position as London as to enteric fever and diphtheria. A hope is expressed that more may be learnt as to the localisation of the cases of specific fever under the Notification Act of last year, and it is evident that careful preliminary

arrangements have been made to secure the success of the system in Chelsea. An effort is also being made in the parish to secure the isolation in hospital of such cases as cannot be properly isolated in their own homes. A detailed account is given of some of the current work, and it is clear that much attention is systematically given to the inspection of courts and of the poor tenement houses, as also to the removal of nuisances; indeed, the houses specially referred to are visited at least once a quarter, and some localities are inspected weekly. Such work as this should, even if slowly, lead to a marked amelioration of the circumstances under which the people live, and the steady diminution in the death-rate of the parish may doubtless be taken as no mean response to the measures which have already been adopted in this and similar directions. The report closes with an account of the proceedings taken under the Sale of Food and Drugs Act.

Barton-upon-Irwell Rural District.—Mr. Henry Knowles recalls the state of this district in 1874–75 before it had a health officer. It was visited and reported on at that date by Dr. Stevens of the Local Government Board, and whether water-supply, sewerage, drainage, excrement and refuse disposal, or dwellings are considered, the state of the district was simply deplorable. At the present date nearly every locality is supplied with good water; some extensive works of sewerage have been carried out; excrement and refuse nuisances are dealt with by public scavenging and otherwise; old dwellings have been improved, and new houses are constructed under bye-laws, their drainage being always inspected before occupation; and the result has been a decrease in death at the following rates: All causes have decreased 24 per cent.; "infectious" diseases as a group, 70 per cent.; "fever," 70 per cent.; diarrhœa, 50 per cent.; and phthisis, 38 per cent. The general death-rate, which stood at 22·3 for the period 1871–75, was for 1886–89 only 16·8 per 1000. But we doubt whether that rate would entitle the district to take its place amongst "healthy districts" as contended. Since 16 per 1000 was held to be a favourable rate for urban areas, a vast amount of improvement has been effected, and Barton-upon-Irwell, although in many respects of an urban character, will probably wish to base its claim for healthiness rather on its rate of 14·8 for 1889 than on a mean rate of nearly 17 per 1000.

Ashton Urban District.—At the beginning of this year the population of this district was estimated at 11,761, and the death-rate for 1889 was 18·6 per 1000. One condition which injuriously affects the health of the town is the wet and sloppy state of the unmade or partly-made streets, and of the yards and spaces about houses; and it is to be hoped that the sanitary authority will deal with the matter wherever they are able. The occupation of new houses before they are dry is an evil of equal importance, although perhaps more difficult to remedy. Indeed, it is evident that the dwelling accommodation of the working classes needs to be carefully looked into on public health grounds. The water-supply is stated to remain of good quality, and faulty closets are being replaced by either pail-closets or automatic flushing closets. New drainage has also been provided in a number of instances where this has been found needed. With steady progress in these matters, to each of which Mr. N. Hannah calls attention, and especially with rapid abolition of the old midden-privies, some substantial reduction of the death-rate of this comparatively small urban district should soon be seen.

Harwich Urban District.—The death-rate for 1889 was 13·6 per 1000 last year, and the zymotic rate was 1·6 per 1000. Typhoid fever caused 2 deaths, and the occurrence was associated with the use of water from contaminated wells, a preventable cause of disease which, it may be hoped, systematic inspection will soon abolish. Good water, says Mr. W. Hardwicke, lies at the people's doors, but it is not sufficiently used, some ignorant people preferring to draw their water from a soil the surface of which is peopled, and through which their drains and sewers run, and on which stand their privies &c. Further sewer ventilation is needed, and the abolition of privies is urged on sanitary grounds; indeed, the mere fact that the privy contents have to be carried through houses of itself justifies the recommendation that such structures should be converted into water-closets. Dovercourt, a marine holiday place, lies in this district, and the removal of all unwholesome conditions should be a constant aim of the sanitary authority.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5550 births and 3834 deaths were registered during the week ending April 12th. The annual rate of mortality in these towns, which had declined in the preceding five weeks from 26·6 to 19·3 per 1000, rose again last week to 20·6; the rate was 19·1 in London and 21·8 in the twenty-seven provincial towns. During last quarter the death-rate in the twenty-eight towns averaged 24·7 per 1000, and exceeded by 1·7 the mean rate in the corresponding periods of the ten years 1880–89. The lowest rates in these towns last week were 10·9 in Birkenhead, 15·3 in Portsmouth, 15·6 in Cardiff, and 15·9 in Leicester. The rates in the other towns ranged upwards to 28·3 in Blackburn, 28·8 in Bolton, 30·5 in Halifax, and 31·5 in Manchester. The deaths referred to the principal zymotic diseases, which had been 424 and 351 in the preceding two weeks, rose again last week to 368; they included 155 from whooping-cough, 87 from measles, 40 from scarlet fever, 35 from diphtheria, 29 from diarrhœa, 22 from "fever" (principally enteric), and not one from small-pox. No death from any of these diseases was recorded in Portsmouth, while they caused the highest death-rates in Wolverhampton, Bolton, and Brighton. The greatest mortality from whooping-cough occurred in Bristol, Salford, Brighton, Wolverhampton, and Bolton; from measles in Derby; and from "fever" in Preston. No marked excess of scarlet fever mortality was recorded in any of the great towns. The 35 deaths from diphtheria in the twenty-eight towns included 21 in London, 4 in Manchester, 2 in Birmingham, and 2 in Sheffield. No death from small-pox was registered in any of the twenty-eight towns. Five cases of this disease were under treatment in the Metropolitan Asylum Hospitals, and not one in the Highgate Small-pox Hospital. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital was last week 1091, the new cases admitted during the week having been 88, differing but slightly from the numbers in recent weeks. The deaths referred to diseases of the respiratory organs in London, which had declined in the preceding five weeks from 510 to 296, rose again last week to 384, but were 40 below the corrected average. The causes of 92, or 2·3 per cent., of the deaths in the twenty-eight towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Newcastle-upon-Tyne, Leeds, Sunderland, Preston, Birkenhead, and Cardiff; while the largest proportions of uncertified deaths were recorded in Halifax, Bristol, Sheffield, Leicester, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had steadily declined in the eight preceding weeks from 28·7 to 24·1 per 1000, further fell to 22·8 in the week ending April 12th, but exceeded by 2·2 that which prevailed during the same week in the twenty-eight English towns. The rates in the eight Scotch towns ranged from 11·9 and 16·4 in Leith and Greenock to 22·4 in Edinburgh and 28·1 in Glasgow. The 591 deaths in the eight towns showed a further decline of 33 from the numbers in recent weeks, and included 41 which were referred to measles, 33 to whooping-cough, 8 to diphtheria, 6 to diarrhœa, 5 to "fever," 3 to scarlet fever, and not one to small-pox. In all, 96 deaths resulted from these principal zymotic diseases, against 82 and 105 in the preceding two weeks. These deaths were equal to an annual rate of 3·7 per 1000, which exceeded by 1·7 the mean rate last week from the same diseases in the twenty-eight English towns. The highest death-rates from these diseases last week were 2·7 in Edinburgh and 5·2 in Glasgow. The 41 fatal cases of measles showed a decline of 6 from the number in the previous week, and included 24 in Glasgow, 7 in Edinburgh, 6 in Dundee, and 4 in Aberdeen. The 33 deaths from whooping-cough, of which 20 occurred in Glasgow and 6 in Aberdeen, corresponded with the number in the previous week. Three of the 8 deaths from diphtheria were returned in Glasgow, 2 fatal cases of scarlet fever in Edinburgh, and 2 of "fever" in Glasgow. The deaths referred to diseases of the respiratory organs in the eight towns, which had been 141 and 130 in the preceding two weeks,

further declined last week to 126, but were 4 above the number in the corresponding week of last year. The causes of 75, or more than 12 per cent., of the deaths in the eight towns were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 30·9, 25·9, and 26·6 per 1000 in the preceding three weeks, declined to 24·5 in the week ending April 12th. During the last quarter the death-rate in the city averaged 37·0 per 1000, the mean rate for the same period being 23·6 in London and 25·9 in Edinburgh. The 166 deaths in Dublin last week showed a decline of 14 from the number in the previous week; they included 3 which were referred to whooping-cough, 2 to measles, 1 to "fever," 1 to diarrhœa, and not one either to small-pox, scarlet fever, or diphtheria. Thus the deaths from these principal zymotic diseases, which had been 11 and 17 in the previous two weeks, declined last week to 7, and were fewer than in any previous week of this year; they were equal to an annual rate of 1·0 per 1000, the rate from the same diseases being 2·1 in London and 2·7 in Edinburgh. The fatal cases of measles, of whooping-cough, and of "fever" showed a marked decline from the numbers in the previous week. Three inquest cases and 10 deaths from violence were registered; and 47, or nearly a third, of the deaths occurred in public institutions. The causes of 15, or nearly 9 per cent., of the deaths in the city were not certified

THE SERVICES.

ARMY MEDICAL STAFF. — Brigade Surgeon Robert Waters, M.D., has been placed on retired pay (dated April 4th, 1890); Surgeon Geo. Henry Kenneth MacDonald O'Callaghan retires on a gratuity (dated April 16th, 1890).

ADMIRALTY.—The following appointments have been made:—Surgeons: William G. C. Smith, M.B., to the *Orlando;* John Hunter, M.B, to the *Asia;* Timothy J. Crowley, M.D., to the *Banterer;* Lawrence Bidwell to the *Boscawen;* Alfred H. L. Cox to Chatham Hospital, temporarily; Edgar R. Dimsey to Plymouth Hospital; and Joseph R. M'Donnell, M.D., to the *Impregnable* (all dated April 10th, 1890).

VOLUNTEER CORPS. — *Artillery:* 1st Worcestershire: Augustus Frederic Clay, Gent., to be Acting Surgeon (dated April 12th, 1890). — 1st Gloucestershire: Acting Surgeon S. Skinner, M.B., resigns his appointment (dated April 12th, 1890).—*Rifle:* 13th Middlesex (Queen's Westminster): Acting Surgeon H. Webb resigns his appointment (dated April 12th, 1890).

VOLUNTEER MEDICAL STAFF CORPS. — The Norwich Division: Surgeon Thomas William Richardson, from the 1st Volunteer Battalion, the Norfolk Regiment, to be Surgeon (dated April 12th, 1890); Walter Scott Warlters, Gent., to be Acting Surgeon (dated April 12th, 1890).

MEDICAL TRIAL.

MARTIN *v.* STUBBS.

THIS was an action in which Brownlow Rudinge Martin, M.B. Dublin, sued Percy B. T. Stubbs, M.R.C.S. Eng., for damages for a libel contained in a certificate of death given by the defendant, in which he attributed the primary cause of the death of William Coleman to "an overdose (two teaspoonfuls) of turpentine given by another doctor," the secondary cause being peritonitis. The case was heard in the Queen's Bench Division, before Mr. Justice Day and a special jury, on the 15th inst. The plaintiff was represented by Mr. Winch, Q.C., and Mr. Gill, and the defendant by Mr. Crump, Q.C., and Mr. Scott Fox. The parties to this action were medical men residing in Hammersmith, and on April 20th, 1889, from the evidence and the opening statement of counsel, it appeared that the plaintiff, Dr. Martin, was called at midnight to see William Coleman, who, he alleges, he found suffering from "flatulent colic," to relieve which he applied hot fomentations externally, and administered one grain of opium, followed in half an hour by two teaspoonfuls of turpentine given in hot water and sugar. On arriving home he sent to the patient an anodyne mixture containing laudanum and cardamoms, and on the following morning the patient expressed himself as being better. The patient was also ordered castor oil, and seemed to be doing well. On calling the next morning, Dr. Martin found that Mr. Stubbs had been called to the case, from which he (Dr. Martin) then retired, and he next heard of it on the following Saturday, the 27th, when two women came to his surgery with a certificate of Coleman's death, which they wished him to explain. In consequence of what was upon the certificate he communicated with the coroner, pointing out that it was a hard thing for a medical man to sit quiet under such a charge, and asking for an inquest, which, however, was refused, on the ground that there was, so far as the coroner could perceive, no imputation of carelessness contained on the certificate, and that if a medical man had acted towards his patient according to his judgment and in good faith, he was not legally responsible, even although the patient might not recover. It was maintained that two teaspoonfuls of turpentine were not an overdose, being only half the dose given in the British Pharmacopœia, and that it was impossible for such a dose to set up peritonitis or cause death, and that therefore the defendant in uttering the certificate had acted from malicious motives and with a view to damage the character and reputation of the plaintiff. Substantial damages were asked for, since in the case of medical men they could not estimate the full amount of the damage done by a libel of this kind. Dr. Finlay, Dr. Cecil Biss, and Dr. Stevenson of Guy's Hospital were called for the plaintiff, and gave their opinion that two teaspoonfuls of turpentine could not produce peritonitis, and they did not think there was any pretence for saying that that quantity was an overdose when it was laid down by the authorities as a medium dose. In reply to a question by Mr. Crump, whether, on finding that a man had died from peritonitis, a quantity of turpentine having been administered, and irritation of the kidneys with blood in the urine following, and no other symptom whatever present to account for the peritonitis, it would not be reasonable to conclude that the administration of turpentine had set up or contributed to the peritonitis, Dr. Stevenson thought that anyone who attributed peritonitis to the administration of turpentine would be going a long way, without the evidence afforded by a post-mortem examination.

For the defence it was contended that the statement on the certificate was made in good faith, and that all that the medical certificate said was that the doctor certified to the best of his knowledge and belief from information he had been enabled to obtain. The facts placed at Mr. Stubbs' disposal were that the turpentine had been administered, blood in the urine discovered, and peritonitis followed. The defendant did not make the statement as beyond all medical conflict or assert a dogmatic opinion that the man had died from an overdose of turpentine, but merely that, to the best of his knowledge and belief, the cause of death was as written. Mr. Stubbs takes the facts which are true, and says: "I find that two teaspoonfuls of turpentine were given in this particular case, which brought about blood in the urine. I think turpentine set up the irritation which caused the death." The suggestion of being actuated by sinister motives was repudiated, and, further, counsel urged that to convict a man compelled by Act of Parliament to make a statement to the best of his knowledge and belief of maliciously publishing libellous statements would add new terrors to the position of a medical practitioner. It was further claimed that the defendant had honestly made the statement, believing it to be true.

The defendant, in his evidence, denied making the statement from any malicious motive. For the defence, Dr. Lauder Brunton was called, and gave evidence to the effect that the amount of the proper dose of turpentine depended entirely upon the purpose for which it is given. When given to relieve flatulence, one generally gave it in the lowest doses named in the British Pharmacopœia—viz., ten or twenty drops; when given for the purpose of acting as a purgative and removing worms, in doses of from four drachms to eight drachms, or even more. The medium dose of two drachms would be less likely to act as a purgative than four or eight drachms, and it would be much more likely to be absorbed; and if absorbed would pass out through the kidneys, and probably give rise to irritation of the kidneys, leading to scanty urine, difficulty in passing it, and the presence of blood in the urine. He did not think that two teaspoonfuls would be an overdose,

except under exceptional circumstances occurring in disease, where such a dose might be injurious. Such a dose might probably set up inflammation of the kidneys, but he did not think it would produce peritonitis. He thought the defendant was justified in concluding that the irritation of the kidneys was due to turpentine, and that this irritation might have aided the death; but he did not think such irritation had produced peritonitis, although he could well understand how a man who had not studied the subject thoroughly might come to the conclusion that it had set up peritonitis, and give that as his honest opinion, while a man who had gone into the subject would not have done so. He had always been accustomed to insist very stringently upon the dangers of a medium dose of turpentine, like one or two drachms, and upon the necessity of giving very small doses or large ones.

Mr. Winch: Do you mean to say that a large dose is really safer than a medium dose?

Dr. Lauder Brunton: Certainly.

Mr. Winch: Then the cause of death on the certificate should be "under-dose?"

Dr. Lauder Brunton: No, it is not from an under-dose, because two teaspoonfuls may be absorbed into the system, whereas a larger one would pass out through the bowel and not be absorbed. He thought in the circumstances he would have taken precisely the course pursued by Mr. Stubbs. He would not have put the words "given by another doctor," unless suspicion of having given it was likely to fall upon himself.

Dr. Job Collins agreed with Dr. Lauder Brunton, but thought it possible that turpentine, being of great power when applied to the skin or mucous membrane of the intestine, might be a contributory cause of peritonitis by producing enteritis. He thought the case one which called distinctly for a post-mortem examination, as they were perfectly in the dark at the present time.

Mr. Justice Day characterised it as a very serious case indeed, as there could be no doubt that if the defendant had maliciously intended to injure the plaintiff by accusing him of causing the death of a patient by incompetence or negligence in the exercise of his profession, he had accused him of that which was likely to lead to his ruin, and consequently had inflicted a grievous injury in any point of view. After the judge had reviewed the facts of the case at some length, the jury found for the plaintiff, and awarded damages to the amount of £200. Judgment was given in accordance with the verdict, and a certificate allowed for a special jury, costs following in due course.

Correspondence.

"Audi alteram partem."

THE OBSTETRIC BINDER.

To the Editors of THE LANCET.

SIRS,—As a practitioner who has attended over 2000 cases of midwifery, and having paid perhaps more than usual attention to the binder, I wish to make a few remarks on a subject which I see has caused some discussion at the Obstetrical Society's meeting. In the first place, I noticed that the remarks passed at that meeting were favourable to, and nothing was said against, the use of the binder.

The binder, as commonly used, consists of a strong broad piece of diaper, a towel, or bolster-slip, or one of the shaped binders. A pad is very often placed over the uterus first, and pressure made upon this with the binder in a direction downwards and backwards. It is applied (or should be) after the expression of the placenta, and not, as I have frequently seen, directly after (or even before) the birth of the child. The only cases in which the binder should be used during labour are those occurring in women with pendulous abdomens, a condition in which the child is carried, to use a midwife's term, "forward." It may then be applied in the earliest stages, and drawn tight during each pain until the head engages the brim, when it should be at once removed. To apply it after the birth of the child and before expulsion of the after-birth is bad practice, as it is perfectly useless, and one cannot compress the uterus to express the placenta through a strong binder. Now comes the question, Why is the binder applied after labour? The answers are: (1) To counteract sudden lowering of the intra-abdominal pressure, and to assist the involution of the abdominal parietes; (2) to compress the uterus; and (3) to comfort the patient. With regard to answer No. 1, as Dr. Herman remarks, the application comes too late to counteract intra-abdominal pressure; and does support assist, or is it necessary to assist, involution? When we see immense tumours or organs removed over which the skin and soft parts have been greatly stretched, and where no pressure is afterwards applied or could be borne, and observe how quickly the parts resume their normal appearance, and after witnessing involution after labour in animals, I think we may safely say that the abdominal parietes will involute without any pressure being brought to bear upon them. 2. Compression of the uterus. This may be divided into two kinds—viz.: (1) Temporary compression for the first few hours to prevent relaxation; and (2) continuous and increasing pressure during the whole of the lying-in period. With the first of these I entirely agree. I think that steady pressure on the womb for the first twelve hours is decidedly beneficial. As to the second, let us glance for a moment at the condition of the parts directly after the conclusion of labour. The uterus has contracted to the size of a small cocoanut. It is heavy, its sinuses being filled with coagulated blood. The ligaments, sacro-uterine especially, are greatly relaxed. The vagina is patulous and relaxed. Now, what effect will the *continuous* pressure of a binder, in a direction downwards and backwards (I see Mr. Duke of Dublin, in a letter to THE LANCET, recommends the pressure after labour to be applied downwards), have upon the uterus in its present state? It will change its normal direction, one of slight anteversion, into one of slight retroversion and prolapse, bringing the heavy uterus with its relaxed ligaments into the line of a vagina the walls of which are unable to support it. What more likely to cause permanent prolapse than this? Gynæcologists well know that the anatomical position of the uterus, and its relation to and the condition of the vaginal walls, are safeguards against prolapse. I have emphasised the word "continuous" by italics, as that is where I consider the danger lies; the medical man is so careful, and the patient so particular to have the binder tightened to the fullest bearable extent, to improve the figure. I think a great proportion of cases of prolapsus uteri owe their origin to this treatment. (3) As regards the comfort of the patient. A great deal of this may be put down to habit and fancy. The woman has always been taught that a binder is necessary, and looks for it, and therefore fancies she feels better for it. German women recover quite as well as English, and the binder is unknown to them. The "pendulous belly" I do not consider to be owing to non-binding, but to the fact of too early getting up, before involution of the abdominal walls is complete.

In conclusion, I consider the binder may be of use in (1) the earliest stages of labour occurring in women with "pendulous bellies"; (2) as a temporary support after labour (say, for twelve hours). It is detrimental if (1) applied before expression of the placenta, or (2) continuously after labour. Should a binder be imperatively demanded, I would suggest cutting out a circular piece of it, of which the centre would be midway between the umbilicus and pubes, thus leaving the uterus free from pressure. I also consider the prone position, as soon as the patient can bear it, occasionally will relieve the passive hyperæmia which is apt to occur in the long-continued dorsal position.

I am, Sirs, yours faithfully,

Marple, April, 1890. HARRY BURTON, M.R.C.S., L.S.A.

"CARDIAC DISEASE IN PREGNANCY AND LABOUR."

To the Editors of THE LANCET.

SIRS,—Having read Mr. Edge's article on the above subject in your issue of March 8th, I should, like the author, be glad to see the opinions of some authorities on the views therein enunciated.

The object of the paper seems to be to advocate the adoption of two new rules for the treatment of cardiac disease in women—(1) In unmarried women forbid marriage, and (2) in pregnant women induce abortion at the third month. It does not clearly appear whether the author deduces these radical suggestions from the result of the case he reports, or whether he simply uses that case as a text on which to base his advocacy of that plan of treatment. But in either event it is evident that his whole contention for the adoption of these sweeping rules is based on two assumptions:

(1) that in the reported case treatment during labour was powerless to avert the fatal result, and (2) that labour will be found to be thus inevitably fatal in so high a proportion of women suffering from cardiac disease as to render it advisable to prevent the possibility of its occurrence in these cases.

Now, without stopping to inquire what proportion of such cases come under notice early enough for the application of this treatment, let us come to the point at once and ask, Is either of these assumptions justified? For if not, then clearly the very foundations of the argument are unsound, and any conclusions built upon them must fall. With regard to the first, I would ask, Were all reasonable precautions taken to reduce the danger from labour to a minimum? Was every effort made to avert the fatal result? Mr. Edge himself supplies to both these questions an answer in the negative; for if we compare the treatment actually adopted with that which he tells us should be followed in these cases, we find that a number of most important measures were omitted. In the first place, we find that the case was entrusted to "the care of a trained midwife," and apparently the surgeon only attended on information being sent to him that the patient had become "suddenly worse." Was this the proper time for him to attend? Having anticipated danger in the second stage of labour, ought he not rather to have been in attendance from the commencement of that stage, so that even if no preventive measures were taken, at least the approach of danger might have been promptly recognised and *immediately* met by appropriate treatment? Then, again, it would appear from the report that respiration continued after the heart had ceased to beat. Under these circumstances should not the hypodermic injection of ether, or other treatment directed more especially to the cardiac failure, have been preferred to, or at least combined with, artificial respiration? Mr. Edge advocates anæsthesia by chloroform or ether, hastening the labour by forceps or turning, and cupping or venesection should the heart's action fail; yet none of these measures, except hastening the labour, and that only when too late, seem to have been employed. When we thus see how altogether incomplete was the treatment adopted, I think we may be allowed to doubt whether the fatal result must be regarded as having been inevitable. But even supposing that in this case it was so, there still remains the question whether this occurs in a large enough proportion of cases to justify Mr. Edge's sweeping contention that no woman the subject of cardiac disease should be allowed to give birth to a viable child. With regard to this question I would ask, Is not the treatment of labour which he himself advises in these cases when the pregnancy is allowed to proceed, and which (with the possible exception of cupping and venesection) is, I believe, that usually adopted—is not this method of treatment sufficiently safe to render altogether unjustifiable the proposed treatment by prohibition of marriage or induction of abortion?

Mr. Edge, as a scientific hospital surgeon, appeals to authorities for judgment on his views; I, as one of the humble race of general practitioners who, not having the same opportunities for personal research, have to look still more to authorities for guidance, would like to support his appeal.

I am, Sirs, yours truly,

Blackpool, March, 1890. ARTHUR BAXENDELL.

HYDERABAD CHLOROFORM COMMISSION.

To the Editors of THE LANCET.

SIRS,—I telegraphed yesterday to request you to omit the *Pioneer* article altogether from the Chloroform Report, as it has been pointed out to me that the passage—"Syme's successors have disregarded his teaching," &c., might reasonably be held to refer to Sir Joseph Lister or Mr. Annandale. On page 518 of Spence's Surgery the following passage occurs: "The state of the pulse should be ascertained before beginning the inhalation, and carefully watched throughout." Caird and Cathcart's "Surgical Handbook" says, "Reflex inhibition of the heart through the vagus might cause death" (page 11); and under the heading "Dangers and Cautions," "secondly, *cardiac*—syncope, or complete cardiac failure." Neither Sir Joseph Lister nor Mr. Annandale was thought of when this teaching was alluded to, and I can only express my deep regret that the phrase, which is susceptible of misinterpretation, should ever have been allowed to appear in connexion with the report.—I am, Sirs, your obedient servant,

EDWARD LAWRIE, Surgeon-Major.

Hyderabad, Deccan, March 27th, 1890.

MEDICAL OFFICERS OF SCHOOLS' ASSOCIATION AND INFLUENZA.

To the Editors of THE LANCET.

SIRS,—The annual general meeting of the Medical Officers of Schools' Association will be held on Tuesday, April 29th, at the rooms of the Medical Society, 11, Chandos-street, at 3.30 P.M., when a discussion on Influenza will be opened by Dr. E. Symes Thompson. The following are the chief points which will be submitted for consideration:—Is influenza merely catarrh in an epidemic form? Does occupation or exposure modify the access or course of the disease? How does the disease affect communities, especially schools? Is it contagious? What is the incubation period? Is segregation desirable or possible? Does one attack secure immunity? Relapses and repeated attacks; association of the disease with measles &c.; classification; treatment. In the belief that the subject is one worthy of attention, and that it would be useful to collate the large amount of evidence which must now be in the possession of many observers with respect to the points already noted especially, the Council of the Association desires to extend a cordial invitation to all medical men who are interested in the question and who may be willing to attend or take part in the discussion.

We remain, Sirs, faithfully yours,

ALDER SMITH,
CHAS. EDWD. SHELLY, } Hon. Secs.

April 12th, 1890.

THE INQUIRY IN REGARD TO METROPOLITAN MEDICAL CHARITIES.

To the Editors of THE LANCET.

SIRS,—As your readers know, the Government have expressed their readiness to appoint a Select Committee of the House of Lords to make inquiry with regard to all hospitals and dispensaries and charitable institutions within the metropolitan area for the care and treatment of the sick poor, which possess real property or invested personal property in the nature of an endowment of a permanent or temporary character, and with regard to the amount of accommodation provided out of the rates, and the management thereof. A large number of members of the profession signed the petition which has led to this investigation.

I am desired to request you to allow me, through your columns, to ask your readers, especially those who are engaged in general practice, if they would furnish, for submission to the Select Committee, evidence in regard to such defects of our existing charitable medical system as have come to their knowledge, and more particularly explicit evidence in regard to cases in which persons have without justification claimed on charitable grounds the honorary services of the medical or surgical staff at hospitals and dispensaries when they were in a position to pay the ordinary fees. It would be of service also if they would give evidence in regard to cases in which the ailments were of such a trivial character as to make attendance at a hospital or dispensary unnecessary. I should add, perhaps, that a circular on this subject is being sent to the members of the profession who signed the petition.

Communications in regard to this letter should be sent to me at the address given below.

I am, Sirs, your obedient servant,

C. S. LOCH, Secretary.

Charity Organisation Society, Central Offices, 15, Buckingham-street, Adelphi, London, W.C., April 16th, 1890.

GENERAL HOSPITAL, NOTTINGHAM.—The annual meeting was held on the 9th inst. A satisfactory feature of the report, which was read and adopted, was a substantial reduction in the expenditure on account of each patient from £5 11*s.* 10*d.* to £4 13*s.* 11*d.* The financial position showed a total of cash in hand of £1007 6*s.* 3*d.* There had been a very considerable falling off in the subscriptions.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

St. Mary's Hospital.

AT the annual meeting of this hospital the subject which occupied the chief attention was the proposed erection of a new building in place of that which has now been in existence for many years. It is just one hundred years since the charity was established, and it is hoped that this centenary year may see the scheme for providing a new and more suitable hospital well put in hand. At present nearly £24,000 have been promised towards the building fund, but the question of a site is the one which presents the most serious difficulties. To obtain this in a central position, such as the governors desire, would alone absorb nearly the whole of this amount. Mr. Mathewson, chairman of the Board of Management, made an urgent appeal to the women of Manchester to come forward and help in this good work, as it is specially concerned in the alleviation of their poorer sisters' necessities. Last year no less than 2738 maternity patients were treated.

Legacies to Local Institutions.

One of the last links connecting us with a former generation was severed by the death of the late Dr. Ainsworth. Although for many years past he has figured but little in the medical world, he will be missed by many circles. Years ago he was physician to the Royal Infirmary before many of the present members of the staff were born. He bequeathed, among other legacies, £250 to the infirmary and £250 to the Salford Royal Hospital.

Influenza.

Although late in arriving in this district, the incidence of influenza seems to have been quite as extensive as in other parts of the country. At one large school no less than 120 of the children and 12 of the officers were attacked in a very short space of time. The Dean of Manchester has also had a smart attack, followed by much prostration.

Open Spaces.

It has lately been announced that the Government intend shortly to remove the cavalry from Manchester and to close the Hulme Barracks, on the score of their insanitary condition. At a public meeting an effort was made to arouse attention to the desirability of securing this large space of ground as an open area, in the midst of the crowded district by which it is surrounded. No greater boon could be afforded to this locality, but it is much feared that the cost involved in the purchase of it will be prohibitive, unless help be forthcoming from some wealthy philanthropists.

Cremation.

It was stated in these columns a few weeks ago that the City Council, in response to an application from the local Cremation Society for a grant of a piece of ground in one of the cemeteries, had refused it, on the score that they had no power legally to devote land for the purpose of erecting a crematorium thereon. Since then the society has opened negotiations for the purchase of a plot of land close by the southern cemetery, and capital is to be raised in the shape of a company. It is hoped that three acres of land may be acquired, and a capital of £6000 will then be necessary to complete the whole design of buildings and equipment.

County Medical Officer of Health.

The Lancashire County Council were somewhat slow and hesitating about deciding to appoint an officer of health, but, having once decided, no time was lost in selecting this official. Fifty-nine candidates applied for the appointment, and from these the Health Committee selected six to meet them at Preston, their choice in the end falling upon Mr. Sergeant, medical officer of health to Bolton, Lancashire, which post he has held for more than a dozen years. The appointment has to be confirmed by the Council at its next meeting, and it is expected, as in Worcestershire, that opposition will again be raised to any such appointment being made at the present time.

Registration of Plumbers.

The movement for the registration of plumbers is making steady progress here. More than 200 applications have been before the local committee recently. On Saturday last an examination was held at the Technical School under the auspices of the Worshipful Company of Plumbers. As a result of this movement, it is hoped that in a few years' time the ignorant, careless, and incompetent workman will be much less in evidence in our houses than at present.

Manchester, April 14th.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

The Liverpool Abattoir.

AT the last meeting of the Finance and Estate Committee, a proposal to renew the lease of the Abattoir Company was rejected by a decisive majority, the votes being four in favour of the renewal and nine against. The result was almost a foregone conclusion, the committee having on two previous occasions refused to renew the lease. It now only remains for the City Council to confirm the resolution at its next meeting, which will take place on May 7th. The medical memorial alluded to in THE LANCET of the 5th inst. has effectually silenced a statement rather freely put forward, to the effect that the medical officer of health had not the support of the medical profession. Three hundred and thirty-seven of his medical brethren have, by their signatures to the memorial, testified their cordial approval of his report on the abattoir, and the memorial is unique as regards the number of signatures; it is also so as respects the large proportion of leading members of the profession who have, almost to a man, protested against the continuance of a slaughterhouse with all its surroundings in the midst of a city such as Liverpool.

Inquests in Public-houses.

At a meeting of the Standing Joint Committee of the Cheshire County Council on the 12th inst. it was resolved, "That in the opinion of this committee it is desirable that coroners of the county should, when convenient, hold inquests in the court-rooms attached to police-stations belonging to the county, instead of in public-houses as at present, and that the chief constable be directed to instruct the officers in charge of such buildings to permit the coroners to hold inquests in such court-rooms, provided they are not being used at the time for magisterial or police purposes, and upon the payment of the sum of 2s. 6d. for cleaning and keeping in order."

Mysterious Death of a Farmer's Daughter.

An inquest was held on the 15th inst. by Mr. Brighouse, county coroner, on the body of a young woman twenty-two years of age, which had been found on the shore at Formby, a few miles from Liverpool, on the 13th inst. The body was found by two men about twenty yards from the water's edge, with the face downwards. The deceased lived with her grandmother, who had noticed nothing strange in her manner or any indication that she was in trouble. Mr. Sykes of Formby, who made the post-mortem examination, found no marks of violence on the body, the stomach was full of water, and there was a small stone; the lungs were engorged and full of froth. A verdict of "Found drowned" was returned.

The Main Bridewell Surgeoncy.

The Watch Committee have recently advertised for a surgeon to attend the Main Bridewell, vice Mr. Cavanagh, deceased, at a salary commencing at £110 per annum, increasing till it reaches £150, which will be the maximum. Nineteen candidates have come forward, and the appointment will soon be made.

Execution of the Atherton Murderer.

William Chadwick, who was convicted at the recent assizes of the wilful murder of a pawnbroker's assistant, was executed on the 15th inst. within Her Majesty's prison, Kirkdale. The murder was a most brutal one, and the evidence against the prisoner was entirely circumstantial, but efforts to procure a commutation of the sentence failed. After the falling of the drop there was no perceptible movement, and the heart ceased to beat in fifteen minutes. The excitement created in the case of the Crewe murderers, and the fact that Chadwick asserted his innocence to the last, have caused a local reaction against capital punishment. It is unfortunate, to say the least, that popular excitement in favour of notorious criminals has had the effect of inducing murderers not to make any confession, knowing well that while there may be a chance of respite so long as they refrain from doing so, all hope will be at an end if they do

confess. Chadwick's last words and his last letter were all special pleadings, and he avoided any allusion to those pieces of evidence which told against him, and which, had he been innocent, could have been easily explained.

Liverpool, April 6th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Sunderland.

I HEAR that Mr. A. E. Harris, the medical officer of Health for Sunderland, has been selected by the Sanitary Committee of Worcestershire County Council as medical officer for that district. The salary is £800 per annum, exclusive of travelling expenses. It is also stated that Mr. Wood, at present police surgeon, is a candidate for the medical officership at Sunderland. Mr. James Laing has intimated to the hon. secretary of the Sunderland Eye Infirmary his willingness to contribute £100 towards a new building for that institution.

Durham.

On Sunday last the experiment of having a church parade, the first of its kind which has been held in the city in connexion with friendly societies, was initiated under most unfavourable circumstances as regards weather, but notwithstanding must be pronounced a success, as about 600 members attended the special service in the Cathedral, and at least 1500 persons turned out to witness the procession. The offertory was for the benefit of the North-Eastern Counties Convalescent Home for Friendly Societies' members, which is about to commence operations at Grange-over-Sands. Dr. Robinson of Stanhope, who first suggested the movement, and Dr. Barron of Durham, who from the first has taken a warm interest and given important help, and other medical men, have been elected honorary medical officers; while Dr. Richard Lowther of Grange-over-Sands has been elected visiting physician. It is hoped that the home will be ready for patients by the beginning of May.

Morpeth.

The very high death-rate prevalent in Morpeth during the month of March was a subject of comment at the last meeting of the Town Council, as the sanitary authority of the town. The medical officer of health attributed it to the late epidemic of influenza; at the same time he recommended the carrying out of certain sanitary improvements which he had before reported as being much needed.—A sad case of suicide by carbolic acid, adding another to the long list of deaths from this easily obtainable poison, took place on last Saturday night. A young woman obtained an eight-ounce bottle of carbolic acid for sixpence, ostensibly for disinfecting purposes. Of this she apparently swallowed about two ounces, which caused death, after much suffering, in about two hours.

Tyne Port Sanitary Authority.

At the last meeting of the Tyne Port Sanitary Authority it was reported that since the last meeting the following vessels had been inspected:—British steamers, 2186; British sailing vessels, 394; foreign steamers, 384; foreign sailing vessels, 120. The total visits paid had been 3619; 183 vessels had sanitary defects, all of which had been remedied with the exception of sixteen. Reference was made to the prevalence of cholera at Bordeaux, and any vessels coming from that port would have to be inspected.

Angling in Northern Rivers.

The last few months have been very trying to the health and energies of most practitioners in the north, so that it is not to be wondered at that many of them sped away to our trout streams during the Easter holidays for a few hours' relaxation. The Tweed, the Whitadder, the Coquet, and the North Tyne attracted many to their banks on Easter Monday and Tuesday, and for the most part the fishing was very good. Easter Tuesday was very cold, with a strong wind blowing; but I heard of one well-known Newcastle practitioner who, finding it impossible, from the force of the wind, to wade and at the same time cast his line, got a sturdy keeper to wade with him, and, leaning with his left hand on the man's shoulder, was enabled to cast successfully, and so proceed with the keeper fishing *pari passu;* at the end of a few hours he found he had a very good basket to his credit, and also, he believes, put to flight some twinges suggestive of incipient gout.

Newcastle-on-Tyne, April 10th.

EDINBURGH.

(FROM OUR OWN CORRESPONDENT.)

Edinburgh University Council.

AT the statutory half-yearly meeting of the Edinburgh University Council, held to-day, it was announced that the Scottish Universities' Commission had fixed the quorum for a meeting of the General Council at ten for every complete thousand or part of a thousand on the register of members for the General Council. This regulation will have the effect either of increasing the attendance at the statutory meetings (which this afternoon, for instance, was exceedingly small) or of putting a stop to the business of the meetings altogether. It was reported by the University Court that they could not approve of the proposal of the Council that any member of the General Council and a Scottish University should have a right to be present at any of the oral or professional examinations in the University of Edinburgh, in the faculty in which they were held. It will be remembered that some such arrangement as this was come to by the Royal Colleges with respect to their Fellows, and the above proposal, in connexion with the University, emanated from a Fellow of the College of Physicians, who took a very active part in bringing about this change in the Colleges. That the Court does not send this decision as their final utterance is evident from the fact that they are prepared to consider any further suggestions on the matter that may be brought before them by the Council. Other communications were made from the Court, one sanctioning the expenditure by the Council of a sum not exceeding £80 for expenses to the end of the present financial year; another with respect to the revised rules for graduation in science in the Department of Public Health. The revision of some of these rules was rendered necessary by the recent regulations and recommendations of the General Medical Council on the subject of qualifications in Public Health. Others have been adopted with the aim of keeping up the standord of the B Sc. in Public Health as the highest qualification of its kind in the kingdom. In regard to the first revisions, Dr. Haddon moved that the Council desired to call the attention of the University Court to the tax put upon graduates by the regulations as to the Public Health qualification, and trusts that such qualification may be included in the M.D. degree. The the whole subject was remitted to the business committee of Council, to which Dr. Haddon was added. A report from the business committee dealing with reports and resolutions of the Council in recent years on such subjects as general universities courts, graduation in arts, extra-mural teaching, and theological tests was given in and adopted. The whole of these subjects are very fully dealt with, and will be placed in full before the public as an example of the spirit in which this work has been approached. It may be mentioned that the report recommends that theological chairs shall be freed from all restrictions which confine them to a single denomination. The question of extra-mural examinations is that of most interest to medical readers, and an early opportunity will be taken of giving a full account of this to those whom it most intimately concerns.

The Position of Sanitary Officers in Scotland.

In to-day's public prints a long extract is given from the preface of Mr. John Skelton's "Public Health and the Local Government Act," which is to be published very shortly. In this preface Mr. Skelton gives an estimate of the cost of a scheme for carrying on the sanitary work of Scotland. He says the cost of his scheme of sanitary administration for the whole of Scotland would not exceed £15,000 to £20,000 a year. For this he would provide six medical officers in chief at salaries of £500 a year (rising to £600); and a staff of competent assistant medical officers, who were to be paid altogether the magnificent sum of £1861. These are to be assisted by thirty sanitary inspectors-in-chief, with salaries of £300 rising to £400, and a number of assistant sanitary inspectors (at present there are 718) with a total salary of £4592. The six medical officers-in-chief are not to be allowed to practise; they are to give themselves entirely to the supervision of the whole of the sanitary work of a sixth of Scotland, and for this responsible position they are to be paid £500 a year rising to £600. The whole scheme savours too much of radically bad economy. There are too few medical officers-in-chief, and these posts are too badly paid to attract anything like the

best men. It is also an essentially bad policy to allow assistant medical officers to engage in practice. The interests of practice and of the sanitary board are not always identical, and it is not right that men should be placed in the position of having to serve one master at the expense of another. This principle was bad in times gone by, and its viciousness is in no way diminished by age. The number of sanitary inspectors-in-chief should also be increased; whilst the number of assistant inspectors, large though it may appear on paper, is certainly not too great for the carrying out of a perfect system of sanitary inspection. It is all very well to begin on a scale in which no retrenchment will have to be made, but the other extreme should be most carefully avoided, where such a great interest as the public health is at stake.

Edinburgh, April 15th.

DUBLIN.

(FROM OUR OWN CORRESPONDENT.)

Dublin Sanitary Association.

AT the annual meeting recently held, the President in the course of his address said three primary conditions were essential to the successful application of the principles of sanitary science to the preservation and improvement of the public health—first, an adequate and accurate knowledge of the facts on which sanitary science was based; second, a comprehensive, well-considered, and intelligible system of law for the control and guidance of sanitary administration; lastly, such vitality and force of public opinion as, while stimulating the sanitary authorities to act with vigour, would enable them to do so with confidence of support, and would ensure to them a sufficient provision of means for the expenditure necessary for the accomplishment of their purposes. The objects of the Dublin Sanitary Association are specifically directed to the securing of these three primary conditions, and during the eighteen years of its existence it may claim the credit of having helped to secure those conditions, and to smooth the way for the exercise of the powers now in the hands of the sanitary authorities. A great deal of good has been done by the Association, but very much yet remains to be effected.

Meath Hospital, Dublin.

The income for the past year was £4535 0*s.* 6*d.*, and the expenditure £4713 0*s.* 2*d.*, or a deficiency on the year of £177 19*s.* 8*d.*, while bequests to the amount of £3000 were received. The newly erected detached mortuary and post-mortem buildings have been completed. They communicate with the hospital by a covered passage, are commodious and well-lighted. They are supplied with hot and cold water &c., while the drainage has been carefully attended to.

Lucan Sulphur Spa.

A company is being formed to establish at Lucan, nine miles from Dublin, a hydropathic sanatorium and hotel, which will possess the exclusive use of the Lucan sulphur spring. The spa was formerly a fashionable health resort, but of late it has been allowed to fall into comparative obscurity. The water contains iron and also sulphur in the form of sulphuretted hydrogen gas, and, so far as flavour is concerned, it is agreeable to the palate. Chemical analysis shows that the Lucan Spa contains about forty grains of solid matter per gallon, while it is as rich in sulphuretted hydrogen (2·71 cubic inches per imperial gallon of water) as the mild or new sulphur spring at Harrogate; the water also contains carbonic acid in great abundance.

Dublin, April 15th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

M. Jules Ferry and the late Dr. Trélat.

THE touching tribute paid to the late distinguished surgeon of La Charité by M. Jules Ferry is, I think, worthy of being recorded in THE LANCET, coming as it does from one of the foremost statesmen of France and an accomplished orator. The usual official discourses which it is the custom in France to deliver at the graveside of eminent men having been pronounced, M. Ferry, as an attached friend of the deceased, begged leave to say a few parting words in his memory. "There would appear," said he, "to be nothing to add to what has just been so well said in memory of the noble spirit that now sleeps here for evermore. The masters of science have spoken; they have called vividly back to the School of Paris, of which he was a brilliant ornament—to scientific Europe, which appreciated him at his due value—his thirty years of precious labour and indefatigable teaching. Permit me nevertheless, gentlemen, as a friend whose only title to speak of Ulysse Trélat is founded on tender attachment, to bid him in the name of friendship an eternal adieu. Death, which places all things at hazard and spares nothing, regarding neither hope, goodness, nor celebrity, appeared here particularly odious. It cut down this combatant, this master, still in his full force and glory. He had reached a period of life when the man of science, looking down and contemplating the heights which he has surmounted, has the right to think—not of repose, for great workers repose in the tomb only—but of honour and pride at his task accomplished. He indeed for many years knew existence as ceaseless toil only—for is not the life of a *savant* one long combat? He loved life, although in a sense he enjoyed it little. Yet he loved it for its nobleness and grandeur. He was indifferent to its vulgar aspects only. Material preoccupations, so absorbing to the commoner types of humanity, were placed by him in a very secondary rank only; his ideal was far above all such considerations. His mind, at once precise, methodic, and coördinated very naturally embraced a wide field of thought, abstract and philosophic. He launched out beyond the confines of science, in which he was so illustrious—and in no region of human knowledge was he a stranger. It was indeed admitted that the blood of a matured *savant*, reformer, and Republican flowed in his veins. His conversation, so brilliant, so ready, varied, and suggestive, left untouched none of the great social and political questions of his day. It is hardly necessary to remind you, gentlemen, that this liberal spirit was in politics himself a Liberal. He was also in no less a degree a true patriot. He saw from close vantage ground our faults and our disasters on the field of battle and in the ambulances of the army of the Loire, of which he was the organiser. Above science, of which he was one of the masters, and of learning, for which he had the passion as well as the genius, he placed the worship of the wounded image of country. His was an organisation multiple and powerful and full of contrasts. Under an exterior severe, not to say rough, Ulysse Trélat hid the most touching kindness and the most tender generosity. A faithful friend, who never swerved, the asperities of his surface were in a manner the guarantees of his devoted loyalty. But the tears which fall here from us convey more than any words. You, his disciples, whom he loved above all things, and whom he did not cease to teach, even from his bed of pain and sickness, and who have now received his last lesson, will bear me witness in this. Adieu, my dear friend. You are not yet altogether dead. You will survive in your friends, in your disciples, and we will all erect for you in our hearts the most inviolable of tombs."

Curious Sequence of Influenza.

At a meeting of the Medical Society of the Paris Hospitals, M. Joffroy related six cases of neuralgia in the scapulo-humeral region immediately consecutive to an attack of influenza. In two of the patients there was an obvious atrophy of the deltoid, in another of the biceps. In the three cases the galvanic reaction was stronger than normal. The atrophy was therefore of a degenerative nature following neuritis. But the question arose, Was it neuritis secondary to spinal meningitis, or a primary neuritis developed in the course of an infectious malady? Reviewing, however, the whole of the clinical evidence, M. Joffroy concluded that it was more probably a question of infectious neuritis such as he had described for the first time in small-pox and tuberculosis.

Paris, April 15th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

Congress of the Surgical Society.

THE nineteenth Congress of the German Society for Surgery was opened on the 9th inst. by the President, Professor von Bergmann, in the hall of the University. In his opening speech the President spoke in high terms of the late Empress Augusta, who was patroness of the Society,

and also of Richard von Volkmann. In the absence of the treasurer, Professor Küster, Dr. Mitscherlich reported on the finance of the Society, after which the news was received that the Emperor had presented the Society with 100,000 marks (nearly £5000). Three cheers for his Majesty were heartily given.

Anæsthetics.

Keppeter of Muensterlingen then spoke on Ether and Chloroform, and held views favourable to chloroform, which he said needed only to be more skilfully applied. It was necessary to use mixtures of chloroform and air of a definite strength. After describing an apparatus for this purpose, he requested each of the members of the Society to state each year the number of cases in which anæsthetics had been administered, and the number of the deaths resulting, with a view of obtaining comprehensive material for forming an estimate of the anæsthetics in question. Several members, including Bruns of Tuebingen, defended the use of ether, while Bergmann declared for chloroform, and pointed out that one must not always attribute deaths that occur under anæsthesia to the anæsthetic; there were cases of death from terror before or during operations without anæsthetics. He earnestly recommended Keppeter's proposal for the collection of statistics. Thieme of Kottbus declared bromide of ethyl to be quite unsuitable for real narcosis.

The Treatment of Tubercular Joint Disease.

Bruns then spoke on the treatment of Tuberculous Joint Abscesses and Gravitation Abscesses by injecting iodoform. Krause, Reissner, Trendelenburg, the author, and others had succeeded in destroying the tubercle bacilli in such abscesses with iodoform. He used a 10 per cent. emulsion of iodoform in water, glycerine, or olive oil, and injected it into the diseased part, previously washing out the latter with boric acid. If one succeeded in completely washing out the cavity with the disinfectant, and if the process of destruction had not gone too far, a complete cure generally resulted in cases in which amputation or resection used to be regarded as indispensable. Trendelenburg pointed out the possibility of destroying the bacilli in tuberculosis of the lung by iodoform in cases in which the tuberculosis is still localised.

Surgery of the Liver.

In the second sitting, on the 10th, Professor Ponfick of Breslau discussed the question of resection of the liver. It had been believed hitherto that it was impossible to remove large portions of the liver owing to the necessity of exposing specially sensitive organs, to the probable derangement of nutrition for want of bile. Observations, however, which he had made in experiments on the physiology and pathology of the liver showed those apprehensions to be groundless. From experiments which had been made on rabbits, it was found that the removal of the fourth part of the liver caused only a slight deterioration in the general condition. The removal of the half caused a much more serious deterioration, which, however, passed off in a few days. Even the removal of three-quarters was borne, though with very severe prostration at first. A considerable number of the animals survived this last operation, and recovered entirely. The excision of more than three-quarters of the liver did not succeed. It was found, further, that the liver had an astonishing power of repairing lost tissue. Within a few days the mutilated organ grew to more than its original size, a fact which seemed to have been known to the authors of the ancient legend of Prometheus. The speaker was followed by Wagner of Königshütte, Lauenstein, and Tillmanns, who partly confirmed what had been said; another speaker, however, declared that medical treatment would suffice in most of the cases in question.

Resection of the Thoracic Wall.

The next speaker was Professor Tillmanns of Leipsic, who showed a case of Extensive Resection of the Wall of the Thorax, with permanent exposure of the pleura. The patient was a man under thirty, who had come to the hospital with tuberculosis of the left lung and a severe tuberculous affection of the neighbouring parts of the pleura and of the thorax. The speaker had removed all the affected parts, including the pleura, whereupon a shrivelling of the left lung ensued, which rendered the final removal of all tuberculous parts possible. The wound was covered as well as possible with cutaneous flaps, and healed completely. The patient recovered, and is now well and able to work. As the operation was performed in May, 1888, the cure may be regarded as permanent. The aperture is about as large as the palm of a man's hand, and leads into a deep and wide cavity large enough to admit the finger. On the right side of the body the healthy right lung can be seen in action. The speaker thought it possible to treat tuberculosis of the lung surgically so long as it was localised. Two operations would probably be necessary—namely, the laying bare of the affected parts of the lung in order to bring about atrophy and shrivelling; and, secondly, the removal of the tuberculous parts after functional disablement.

Electro-puncture for Aneurysm.

Professor Tillmanns also showed a case of Electro-puncture for Aneurysm of the Aorta. Such an aneurysm in a strong man had been completely removed by this method. The speaker used a battery of twenty elements, inserting a Stöhrer's regulator to mitigate the pain. Immediately after the introduction of the needle the aneurysm sac began to shrivel, and after a series of sittings disappeared altogether. In the third sitting of the Congress Madelung of Rostock spoke on the Operative Treatment of Nephrophthisis, declaring it to be quite admissible and well worthy of consideration in carefully chosen cases at the proper moment.

The Vermiform Appendix.

Graser of Erlangen spoke in similar terms of the operative treatment of Peritonitis of the Vermiform Process. The inflammation and perforation of the vermiform process, caused for the most part by enteroliths (not, as was commonly supposed, by other foreign bodies), had been claimed hitherto by internal medicine as a part of its domain; its internal treatment, however, had not been so successful as was generally supposed, and a number of significant cases indicated the importance of surgical treatment. I shall send a report of the further sittings of the Congress next week.

Berlin, April 15th.

VIENNA.

(FROM OUR OWN CORRESPONDENT.)

The Ninth German Congress of International Medicine.

MOST of the members of the German Medical Congress arrived here to-day, and a reception was given at the Kaiserhof Restaurant. No speeches were delivered there, but discussion among the various groups of visitors was very active. More than 300 physicians attended the first unofficial meeting. Besides Vienna celebrities, Professor Leyden (Berlin) and many other *savants* were among the guests. Surgery was well represented, probably on account of the discussion on the treatment of empyema, which was placed first on the programme. It will be proposed that in future the annual meetings of the Congress should be held at Vienna, Leipsic, Berlin, and Munich respectively, instead of at Wiesbaden, where the eight previous meetings have been held. The last meeting showed only 255 members, and it was hoped that by changing the Congress to different localities the number of its members would increase. One of the principal attractions of the Congress will certainly be the demonstration given by Professor Stricker, with his new "Episcope," an electric lantern, whereby opaque objects, even of small size, can be made visible to a large audience in their natural colours. According to the information I have received, the objects to be demonstrated by Professor Stricker will be:—The heart pulsations of an animal during suffocation; the intestinal movements of an animal produced by stimulation of the vagus nerve; and the surface and sections of human brain.

The First Female Surgeon in Austria.

Medical circles here were somewhat displeased last week by an official order granting to a lady, who had graduated at the Berne University, the right of practising in Austria as an ophthalmic surgeon. Before this time even Austrian gentlemen who had graduated at a foreign university have been prevented from practising in Austria. The above-mentioned lady, the wife of Dr. Kerschbaumer, an ophthalmic surgeon at Salzburg, has been employed for many years as assistant by her husband, and has been a pupil of the late Professor Arlt. This is the second case, in the course of the past few years, in which the Government has interfered with the privileges of the universities. Some years ago the Austrian Government licensed a peasant at Goisern to treat luxations and fractures.

Vienna, April 14th.

Obituary.

SURG.-GEN. H. KENDALL, M.D., M.R.C.S., L.S.A.

RETIRED LIST.

THIS distinguished army medical officer died at Lee, Kent, on March 20th, in the seventieth year of his age. Born at Renfrew, Scotland, on Jan. 9th, 1821, he was at an early age unfortunately deprived of his father's care, he having died at Batavia in 1824, consequently the education and bringing up of young Kendall devolved upon his grandfather, a native of Norfolk, Virginia, U.S. Having chosen medicine as his profession, Henry Kendall was entered as a student at the Middlesex Hospital, where his abilities attracted the attention of several of its distinguished staff, and he eventually became a pupil of Sir Erasmus Wilson. In 1842 he passed the M.R.C.S., as well as the L.S.A., proceeding afterwards to the University of St. Andrews, where he graduated M.D. in 1845. His inclinations pointing towards a military career, he was nominated for an appointment in the Army Medical Staff. He entered the service as assistant surgeon in December, 1845, and not long afterwards was gazetted to the 17th Lancers. With that regiment he proceeded to Turkey in 1854, and eventually to the Crimea, where he was present at the affairs of Bulganac and Mackenzie's Farm and the battles of Alma and Balaclava. At the latter ever-memorable fight he particularly distinguished himself by his intrepidity in attending to the wounded of the Cavalry Brigade under a heavy fire, so much so that it became a question at one time whether he ought not to be recommended for some signal mark of Royal favour, the Victoria Cross even being spoken of. As Surgeon (Oct. 6th, 1854) of the 4th Light Dragoons he was also present at the battle of Inkerman and Tchernaya, as well as during the whole of the siege and fall of Sebastopol; and further took part with the Light Cavalry Brigade in the operations at Eupatoria under General D'Allonville (medal with four clasps and Turkish medal). As Surgeon of the 7th Hussars, he was engaged during the Indian Mutiny campaign from February, 1858, to March, 1859, and was present at the repulse of the enemy's attack on the Alumbagh, siege and capture of Lucknow, affairs at Barres and Sircee, action of Nawabgunge, occupation of Fyzabad, passage of the Goomtee at Sultanpore, throughout the Byswarro campaign (medal with clasp). Promoted to the rank of Surgeon-Major on Dec. 16th, 1865, he continued to serve in India with the 7th Hussars until the regiment returned to England in 1869, remaining with it until sent to Aldershot in 1870, where he officiated as Principal Medical Officer till ordered out to Burmah the following year. There also he was in the responsible position of Superintending Surgeon for three years and a half, until promoted to the rank of Deputy Surgeon-General on Jan. 7th, 1875, when he took over the medical charge of the Allahabad Division of the Bengal Army, holding that office for two years, when he was transferred to a similar post at Umballa, Punjab. There he remained up to 1880, when he received orders to return to England. At home he was posted to the Chatham district, and was promoted to the rank of Surgeon-General on Aug. 2nd, 1880, a position he held for five months only, as under the "age" clause of the Royal Warrant he was compulsorily placed on the retired list on Jan. 19th, 1881. This was a great disappointment to him, for he was still a hale and hearty man; and finding enforced idleness most irksome, and, with a view to obtaining employment, he applied, but unsuccessfully, for a Government appointment then vacant, for which his abilities and experience well suited him. Eventually he settled at Bexley Heath, Kent, where he had the misfortune to lose his wife—a daughter of the late Sir James Brind, K.C.B. He afterwards moved to Lee towards the end of last year, where he quietly passed away on March 20th. His health had been failing since the autumn of 1887, when disease of the tarsal bones of the left foot supervened, confining him to his bed nearly the whole of that winter. But rest and care restored him to something like himself again, until an attack of apoplexy prostrated him. He never recovered his vigour, remaining in a precarious state of health, although able to get about. A second stroke supervened the day before his death, and proved rapidly fatal.

During the busy life he led his contributions to medical literature were all of the nature of military medical reports and statistics, many of which were most valuable towards improving the health and wellbeing of the British soldier, teeming as they were with the results of his ripe and wide experience, more especially of service in India and similar warm climates. These reports were at the same time marked by sound common sense, and by a large-minded knowledge of the world. To the writer of this very imperfect sketch of his life he has often said, that the position and status of the army surgeon depended, not only on his own professional abilities, attention to duty, and gentlemanly bearing, but also in a very large measure on the "common sense" of commanding officers, and of the military officers with whom he might be brought in contact—a view of the question which may be somewhat new to them. Of the personal worth of the deceased, suffice it to say he was respected and beloved by all who had the pleasure of his acquaintance. Of his professional abilities an idea may be gained from the many reports and records of his service during the thirty-five years he served his Queen and country in various parts of the world.

OTTO EUGEN KELLER, M.D. BERNE, L.R.C.P. LOND., M.R.C.S. ENG.

WE regret to announce the death of this young and promising member of our profession, which took place unexpectedly on April 9th. The deceased was thirty years of age, and a native of St. Gall, Switzerland. Having come to London in the pursuit of his studies about five years ago, he was induced to stay, and obtained the appointment of resident medical officer at the German Hospital. There he was much esteemed for the great interest he took in his work, his skill and great amiability of manner. After having resigned the office in the autumn of 1888, he settled in Finsbury-square. He quickly became a great favourite among his countrymen and the German community, and a sucessful career seemed to be almost certain to him. But though fortune smiled on him in this way, his nearest friends knew for some time that a great despondency of mind was weighing upon the young practitioner, against which he fought by all possible means without being able to overcome it. It ended in his taking a fatal dose of morphia. Several letters addressed to friends, and found on his desk after the event, left no doubt about the disarranged state of the poor sufferer's mind.

It may be in the recollection of some of our readers that Dr. Keller brought an interesting case of Actinomycosis before the Clinical Society last November. He also read a paper on the same disease at the last meeting of the British Medical Association.

Medical News.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.—The following gentlemen passed the Second Examination of the Board in Anatomy and Physiology at a meeting of the Examiners on the 9th instant:—

Ernest Miskin, E. M. Hainworth, C. L. B. Stares, A. R. O. Milton, and W. G. Sutcliffe, of St. Thomas's Hospital; R. C. Bennett, John Jones, F. Deas, F. W. Wesley, and R. J. Wait, of University College; K. Lawson, W. A. Dixon-Whiteman, W. H. Johnson, and A. E. Bodington, of Middlesex Hospital; J. A. Morgan, N. R. J. Rainier, and J. W. Willson, of Charing-cross Hospital; J. H. Collyns and J. J. Grace, of St. Bartholomew's Hospital; F. Hazell, of Guy's Hospital; W. Turner, of King's College; E. L. Payne, of St. Mary's Hospital; and A. J. Temperley, of London Hospital.

Anatomy only.—A. A. Rostant and R. F. Symons, of St. Thomas's Hospital; M. C. O'Brien, of St. Mary's Hospital; W. E. Collier and S. E. Gill, of St. Bartholomew's Hospital; W. C. C. Park, of Guy's Hospital; and C. H. Panting, of London Hospital.

Physiology only.—E. W. Cross, of St. Bartholomew's Hospital.

Passed on the 10th inst.:—

Anatomy and Physiology.—M. Randell, M. J. Williams, and H. S. Beadles, of University College; C. W. Curtis and H. C. Thomson, of Middlesex Hospital; J. L. Morton, C. M. Rhodes, and A. J. Ortlepp, of St. Mary's Hospital; H. C. French and A. R. MacGregor, of King's College; S. F. St. D. Green, F. E. Greenwood, and P. A. Bradshaw-Isherwood, of St. Bartholomew's Hospital; J. L. Prain, G. J. Arnold, and J. W. Hewett, of St. Thomas's Hospital; S. L. J. Steggall, of Charing-cross Hospital; H. G. Felkin and A. H. Cender, of London Hospital; and C. G. Godfrey, of Melbourne University.

Anatomy only.—J. C. S. Matthews and R. K. Bayley, of St. Mary's Hospital; H. C. Roberts, J. G. Schewrer, and R. M. Russell, of London Hospital; E. S. Humphry and E. Kennington, of St. Bartholomew's Hospital.

Physiology only.—A. E. Ridsdale, of St. Thomas's Hospital; Ellis Clowes, of Charing-cross Hospital; and F. A. Stephens, of King's College

Passed on the 11th inst.:—

Anatomy and Physiology.—R. H. Ritchie, of Guy's Hospital; C. G. Spencer, A. W. Kirkpatrick-Picard, of University College; E. S. Cardell, L. W. Rolleston, and A. H. Buck, of St. Bartholomew's Hospital; J. S. Collier, of St. Mary's Hospital; W. A. Pinninger and A. Strange, of London Hospital; H. W. Woods, of Charing-cross Hospital.

Anatomy only.—H. M. Moore, of St. Thomas's Hospital; O. C. Maurice and H. B. Ellerton, of St. Mary's Hospital; E. A. Rogers, of King's College; and F. W. Rock, of St. Bartholomew's Hospital.

Physiology only.—E. B. Barber and C. S. Simpson, of London Hospital; W. R. Barrett, of Charing-cross Hospital; P. M'K. C. Wilmot, of Guy's Hospital; and B. A. Castellote, of Middlesex Hospital.

UNIVERSITY OF GLASGOW.—The following gentlemen have passed the Third Professional Examination for the degrees of M.B. and C.M., including, in the cases marked with asterisks, the subject of Pathology:—

Charles Angus Alexander, *James Gordon Bain, John Fulton Barr, B.Sc., Thomas Berry, David Brown, David Christie, *Andrew Cluckie, Charles Edward Cochrane, William Colvin, *David Coutts, Evan Davies, Richard Gregor Dick, Hugh Colligan Donald, James Gray Duncanson, William Bert, Ochiltree Ferguson, Richard Hamilton, David Harries, William Sandilands Harrison, James Jarvie Hood, Frederick William Ernest Hutchison, John Johnson, John Martin Munro Kerr, *Robert Robertson Kilpatrick, *George Lamb, Charles Lavery, Arthur Henry Lucas, Crawford Blair Lucas, Robert Moir, Stuart Macbirnie, Roderick John Mackay, *Peter M'Ritchie, James Henderson Naismith, *William Alexander Neish, *Robert James Nevin, Charles O'Neill, William Park (Rutherglen), John Gilfillan Ronald, *Ralph Henry Rothery, Archibald George Sanders, *Robert Sharp, *James Stirling, M.A., Charles Symington, *George Marius Edwin Thorp, David Watson, *Robert Wilson.

FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.—At the April sittings of the Examiners the following gentlemen, having passed the necessary examinations, were admitted Diplomates in Public Health of the Faculty:—

Dr. John Housley, Rockley, near Retford; Dr. John M. Miller, Larks; Dr. Anthony Milroy, Kilwinning; Dr. Archibald M'Lean, Peebles; Dr. James Shaw, Sheerness; Dr. George W. Thomson, Haywood, Lanark.

THE SANITARY INSTITUTE.—On Wednesday next, at 8 P.M., an address will be given at the Parkes' Museum by Sir Robert Rawlinson, K.C.B., who will present the medals and certificates awarded to the successful exhibitors at the exhibition held at Worcester in 1889.

THE VACCINATION COMMISSION.—Lord Herschell arrived in town on Wednesday morning, and a meeting of the Royal Commission on Vaccination (his lordship presiding) was held later in the day. Mr. Wheeler of Darlington, whose evidence against the Acts was not concluded when the Commission rose for the Easter recess, was again under examination. Mr Wheeler will give further evidence at the next sitting, on Wednesday next.

PRESENTATIONS.—At the Hôtel du Nord, Boulogne-sur-Mer, on April 12th, the Consul, Mr. Bonham, presented a testimonial of silver plate, of the value of £100, and a purse of money to Mr. Harvey, who is about to enter on a medical practice in London. The handsome service bore the following inscription: "Presented, together with a purse of 140 guineas, to John S. Selwyn Harvey, M.R.C.S., B.Sc., Licentiate in Medicine, Paris, by his numerous friends, on his leaving Boulogne-sur-Mer, in recognition of his skill and kindness during a practice of twenty years. (April, 1890.)"—On April 9th the members of the staff of The Brook Asylum, Liverpool, presented their medical superintendent, Dr. Ben Hall (who is leaving the asylum to enter private practice), with a very handsome spirit case and a silver cake basket. A few of his medical friends also presented him with an Astley Cooper's case of surgical instruments.—Dr. McLearn on behalf of the officers of the Holborn Infirmary, Archway-road, London, presented, in the presence of the whole staff, Mr. A. Wellesley Harris, M.R.C.S., L.S.A. and D.P.H., with an elaborate silver tantalus spirit stand containing three choice cut bottles; also an elegant silver shell biscuit case, interleaved and mounted in a gilt frame. Both articles bore the following inscription: "Presented to Dr. A. Wellesley Harris by the officers of the Holborn Infirmary on his appointment to the post of Medical Officer of Health to the Borough of Southampton."—On the 6th inst. Mr. Cecil A. P. Osburne, L.R.C.P. Edin., on the occasion of his leaving Church Stretton, Shropshire, where he had practised for several years, was presented by the members of the Church Stretton Choral Society and ambulance class, and other friends, as a mark of esteem and goodwill, with a handsome tea and coffee service and a beautifully illuminated address.

MEDICAL MAGISTRATE.—Mr. D. Hartley, M.R.C.S., has been placed on the Commission of the Peace for the borough of Accrington.

NOTIFICATION OF INFECTIOUS DISEASES.—The Braintree board of guardians have resolved to adopt the Act for Notification of Infectious Diseases, and to put it in force in June next.

VACCINATION GRANTS.—The following gentlemen have received grants for efficient vaccination in their respective districts:—Mr. Henry Laver, M.R.C.S. &c., the Colchester Union; Mr. J. H. Lloyd, M.R.C.S. &c., the Cullompton and Kentisbeare districts.

THE GRESHAM LECTURES on the subject of "Heredity, or Inherited Characteristics" (continued from last course), will be delivered on April 15th, 16th, 17th, and 18th, at 6 P.M., by Dr. Symes Thompson, at the College, Basinghall-street, E.C.

ROYAL INFIRMARY, HULL.—The financial condition of the Infirmary last year being unsatisfactory, a special appeal for funds has been made, and generously responded to. Among other efforts, a scheme known as the Samaritan Roll-call, to raise £1000 by shilling subscriptions, has resulted in the realisation of the sum required.

OPEN SPACES.—Mr. Vyell E. Walker of Southgate has offered fifteen acres of land, valued at £5000, to the Southgate Local Board of Health, to be used as a public recreation ground by the inhabitants of New Southgate, Southgate, Friern Barnet, and Barnet Valley, on condition that the residents of the district lay it out.

BIRMINGHAM CHILDREN'S HOSPITAL.—At the quarterly meeting of the Board of Governors of this hospital, it was announced that a gentleman, whose name was not given, had given £1000 to the funds of the charity, to be applied specially to maintaining a cot to be named the "George Elkington."

MEDICO-PSYCHOLOGICAL ASSOCIATION.—A bronze medal and 10 guineas will be awarded in July, on conditions to be obtained from the honorary secretary, to any assistant medical officer of any lunatic asylum (public or private), or of any lunatic hospital in the United Kingdom, for the best dissertation on any clinical or pathological subject relating to insanity. For particulars, apply to the honorary general secretary, Dr. Fletcher Beach, Darenth Asylum, Dartford.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—At the quarterly court of the directors of the Society held on April 9th, Sir James Paget, Bart., President, in the chair, three new members were elected and the deaths of three were reported. No fresh applications for relief were read. It was resolved that £1343 be distributed at the next court to the sixty-one widows, fourteen orphans, and three orphans on the Copeland Fund, on the books at the present time. A legacy of £500, duty free, from the executors of the late Edward Robson Jones, Esq., was announced. The expenses of the quarter were £60 11s. It was recommended that William Fuller, Esq., be elected a vice-president in the place of J. Gregory Forbes, Esq., deceased; and that Dr. Cribb, Dr. Savory, Dr. Pollock, Dr. Roberts, Mr. Willett, and Mr. A. Pearce Gould be elected directors at the annual general meeting, in the place of the six seniors, who retire by rotation. The annual general meeting was fixed to be held on Thursday, May 22nd, at 5 P.M., at 20, Hanover-square, W.

MEDICAL NOTES IN PARLIAMENT.

Vaccination Returns (Persons in Prison).

IN the House of Commons on Monday, 14th inst., Mr. Matthews, in reply to Mr. Bradlaugh, stated that the return was incomplete, the Petty Sessional Courts of Middlesex and the metropolitan police courts not being included. The missing particulars would be furnished at the earliest possible date.

Swiss Regulations.

Dr. Farquharson asked the Under-Secretary whether there was any likelihood of a relaxation of the regulations preventing British medical men from practising in Switzerland. Sir James Fergusson said it was no doubt a hardship that Englishmen in Switzerland could not

avail themselves of British medical men. An arrangement, however, had been come to in favour of English practitioners regularly living in that country.—Mr. Labouchere thought the Swiss authorities were quite right. There were a lot of quacks in England, and precautions were taken in this country against their palming themselves off as fully qualified medical men. Why should not an English doctor who went abroad be required to show to some authority there that he knew something of his profession? He had seen a good deal of English doctors abroad. Generally speaking, they were little men who could not get on at home. They got themselves puffed when they went to another country. They killed more than they cured.

Professor Rutherford and Vivisection.

In the House of Commons on Tuesday, 15th inst., Mr. Matthews said his attention had been called to a letter in the *Scottish Leader* of Jan. 27th, 1890, containing allegations of cruelty against Prof. Rutherford. The inspector inquired into that part of the allegation which stated that the dog had not been killed after the lecture, and had reported that no dogs or other animals used by Professor Rutherford under Certificate C had been allowed to recover from the full effect of the anæsthetic before being killed.

Dishorning of Cattle.

Dr. Fitzgerald asked the Attorney-General for Ireland whether the dishorning of cattle was an illegal operation in Ireland; and, if so, would he take steps to enforce the law so as to prevent this cruelty being inflicted upon dumb animals.—The Attorney-General for Ireland pointed out that the law on the subject was at present in a somewhat unsettled state. The matter recently came before him officially. It appeared to be desirable that the opinion of the Queen's Bench Division in Ireland should be taken on the point upon full and satisfactory evidence, and for that purpose directions had been given that the attention of the police should be called to the matter, with a view to instituting a prosecution if the practice were found to continue to exist in Ireland.

The Budget.

On Thursday, in the financial statement made by the Chancellor of the Exchequer, the unwelcome announcement was made that nearly two and a half millions of the surplus of three millions and a quarter was due chiefly to an extraordinary consumption of alcohol. The actual revenue from alcoholic drinks amounted to £29,265,000, as compared with £27,157,000 the year before. "The figures showed," said Mr. Goschen, "that there had been a universal rush to the beer barrel, the spirit bottle, and the decanter."

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at midnight on April 15th, 1890.

Hospital	Beds occupied.						Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever	Other diseases.	Total.	
Eastern Hospital	176	22	..	18	1	217	442
North-Western Hospital	106	20	..	7	..	133	415
Western ,,	137	17	..	9	1	164	262
South-Western ,,	132	..	..	..	..	132	350
South-Eastern ,,	155	21	1	27	7	211	462
Northern ,,	355	26	..	11	..	392	584
Totals	1061	106	1	72	9	1249	2515

SMALL-POX.—*Atlas* hospital ship, 5.

BOOKS ETC. RECEIVED.

BAILLIÈRE, J. B., ET FILS, Paris.
Atlas Manuel d'Anatomie, descriptive du Corps Humain. Par Dr. A. Prodhomme. Avec 135 Planches. 1890. pp. 284.

CHURCHILL, J. & A., New Burlington-street, London, W.
Guy's Hospital Reports. Edited by N. Davies-Colley, M.C., and W. Hale White, M.D. Vol. XLVI., being Vol. XXXI. of the Third Series. 1889. pp. 521.
The Microtomist's Vade-Mecum. A Handbook of the Methods of Microscopic Anatomy. By A. B. Lee. Second Edition. 1890. pp. 413.

DAVIS, F. A., Philadelphia and London.
A System of Practical and Scientific Physiognomy; or, How to Read Faces. By Mary C. Stanton. Vol. I., profusely Illustrated. 1890. pp. 597.
Practical Electricity in Medicine and Surgery. By G. A. Liebig, jun., Ph.D., and Geo. H. Rohé, M.D. Illustrated. 1890. pp. 383.

DAVIS, G. S., Detroit, Michigan.
Diabetes, Mellitus, and Insipidus. By A. H. Smith, M.D. 1889. pp. 74.

FANNIN & Co., Grafton-street, Dublin; and BAILLIÈRE, TINDALL, and COX, London.
Transactions of the Royal Academy of Medicine in Ireland. Vol. VII. Edited by Wm. Thomson, M.A., F.R.C.S., General Secretary. 1889. pp. 402.

GILL, L. UPCOTT, 170, Strand, London.
Home Medicine and Surgery: a Dictionary of Diseases and Accidents, and their Treatment when the services of a Doctor are not obtainable. With Illustrative Diagrams. By W. J. Mackenzie, M.D. 1890. pp. 164. Price 2*s.* 6*d.*

HACHETTE ET CIE., Paris.
Agenda du Chimiste. Par MM. G. Salet, Ch. Girard, and A. Pabst. 1890. pp. 552.

KEGAN PAUL, TRÜBNER, & Co., Ludgate-hill, London.
The Biology of Daily Life. By J. H. N. Nevill, M.A. 1890. pp. 136.

LEWIS, H. K., Gower-street, London.
Chronic Bronchitis and its Treatment: a Clinical Study. By William Murrell, M.D., F.R.C.P. 1889. pp. 176.
Treatment of Disease in Children, embodying the Outlines of Diagnosis and the chief Pathological Differences between Children and Adults. By Angel Money, M.D., F.R.C.P. Lond. Second Edition. 1890. pp. 542.

LIPPINCOTT, J. B., Co., Philadelphia, and Henrietta-street, Covent-garden, London.
The Principles and Practice of Surgery; being a Treatise on Surgical Diseases and Injuries. By D. Hayes Agnew, M.D., LL.D. Illustrated. Second Edition, revised, with Additions. In Three Volumes. 1889.

LONGMANS, GREEN, & Co., London.
A Manual of Anatomy for Senior Students. By E. Owen, M.B., F.R.C.S. With Illustrations. 1890. pp. 526. Price 12*s.* 6*d.*

PENTLAND, YOUNG J., Edinburgh and London.
A Text-book of Obstetrics, including the Pathology and Therapeutics of the Puerperal State. By Dr. F. Winckel. Translated by J. Clifton Edgar, A.M., M.D. With 190 Illustrations. 1890. pp. 927.

SAMPSON LOW, MARSTON, & Co., Fetter-lane, Fleet-street, London.
The Story of a Poodle, by himself and his Mistress. A Book for Children. By Lucy D. Thornton. With Illustrations. Second Edition. 1890. pp. 49. Price 2*s.* 6*d.*

SPOTTISWOODE & Co., Gracechurch-street, London.
The Dentists' Register, 1890.

STILLWELL & Co., Collins-street, Melbourne.
International Medical Congress of Australasia. Transactions of Second Session. Held in Melbourne, Victoria, January, 1889. pp. 1029.

Statistique des Vaccinations au moyen des Cultures du Microbe atténué de la Fièvre Jaune, pendant l'Épidémie de 1888-1889; par le Dr. Domingos Freire (Pinheiro & Co., Rio Janeiro, 1890).—Index-Medicus: Authors and Subjects. Index to Vol. XI. (Trübner & Co., and Lewis, London).—Handbuch der Ohrenheilkunde, von Dr. W. Kirchner; Dritte Auflage (F. Wreden, Berlin, and Williams and Norgate, London).—Die Inneren Krankheiten der Harn-und Geschlechtsorgane; von Professor Dr. Paul Fürbringer; Zweite Auflage (F. Wreden, Berlin, and Williams and Norgate, London).—The Torquay Pictorial, an illustrated Guide to Torquay and Neighbourhood (published at the "Directory" Office, Torquay, 1890); price 1*s.*—Revue Internationale de Bibliographie Médical, Pharmaceutique et Vétérinaire, Avril, 1890; dirigée par le Docteur J. Rouvier (Jacques Lechevalier, Paris).—The Journal of Anatomy and Physiology, Normal and Pathological; conducted by Professors Humphry, Turner, and M'Kendrick. Vol. XXIV., new Series; Vol. IV., Part 3, April, 1890. With plates and woodcuts (Williams & Norgate, London and Edinburgh, 1890).—Therapeutisches Lexikon für Praktische Aerzte; herausgegeben von Dr. Anton Bum (Urban und Schwarzenberg, Wien und Leipzig, 1890).—The Verulam Review, April—June, 1890 (Elliot Stock, London); price 1*s.*—An Investigation of the Death-rate of Preston, as compared with other Manufacturing Towns, with a Letter on certain Comparative Statistics; by an Alderman of the Borough (The Guardian Printing Works, Preston, 1890); price 1*d.*—Annual Report of the Supervising Surgeon-General of the Marine Hospital Service of the United States for the Fiscal year 1889 (Government Printing Office, Washington).—Shelley & Co.'s Complete Press Directory for 1890, fourth edition; a full and impartial Guide to the Press of the United Kingdom (Shelley & Co., London); price 1*s.*

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.

ALLEN, A. H., F.C.S., has been reappointed Analyst for the Borough of Sheffield.

ANDERSON, A. R., F.R.C.S., has been appointed Certifying Factory Surgeon, Notts.

BANNATYNE, G. A., M.B., C.M. Glas., has been appointed Medical Officer to the Greenock Parochial Asylum and Poorhouse, Smithston, vice H. J. Younger, M.B., resigned.

BARRON, T. W., M.B. Cantab., L.R.C.P. Lond., has been appointed Honorary Medical Officer to the Convalescent Home for Friendly Societies' Members, Grange-over-Sands.

BINGHAM, J. J., M.D. St. And., M.R.C.S., has been appointed Medical Officer for Alfreton.

BRYANT, E. M. R., L.S.A., has been appointed Assistant House Surgeon to the Metropolitan Hospital, Kingsland-road.

BULLOCK, ROGER, M.R.C.S., L.S.A., has been appointed Medical Officer to the Warwick Union Workhouse, vice J. S. Baly, M.R.C.S., L.S.A., deceased.

DAVIES, D. S., M.B. Lond., L.R.C.P., has been reappointed Medical Officer for the Port of Bristol.

DUDLEY, J. G., M.A., M.D.Cantab., M.R.C.P.Lond., has been appointed Consulting Physician to the Metropolitan Hospital, Kingsland-road.

EATON, J. W., L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer to the Bingham Rural Sanitary Authority.

GILES, A. E., B.Sc. Lond., M.R.C.S., has been appointed Assistant Medical Officer of the Workhouse, Township of Manchester.

GOW, WILLIAM J., M.D. Lond., M.R.C.S., M.R.C.P., has been appointed Obstetric Physician to the Metropolitan Hospital, Kingsland-road, vice Albert J. Venn, M.D. Aber., resigned.

HARRIS, A. E., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer of Health for the Worcestershire County District.

HEAVEN, J. C., L.R.C.P. Lond., M.R.C.S., has been reappointed Assistant Medical Officer for the Port of Bristol.

JOHNSTON, C. S., M.R.C.S., has been appointed Medical Officer for the First and Second Districts of the Parish of Birmingham.

LEON, JOHN T., B.Sc. Lond., F.I.C., F.C.S., has been appointed Demonstrator of Chemistry and Assistant Lecturer on Physics to St. Mary's Hospital Medical School, Paddington (not St. Mark's, as given last week).

LIVETT, H. W., L.R.C.P. Edin., M.R.C.S., has been reappointed Medical Officer for the Wells Union district.

LOWTHER, RICHARD, M.D. Edin., M.R.C.S., has been appointed Visiting Physician to the Convalescent Home for Friendly Societies' Members, Grange-over-Sands.

NEWMAN, HENRY, M.R.C.S., has been appointed Medical Officer to the Cosford Union, Hadleigh Urban Sanitary District, vice Atkins, deceased.

PARKER, G. D., M.R.C.S., L.R.C.P. Lond., has been appointed House Surgeon to the Metropolitan Hospital, Kingsland-road.

PHELPS, PHILIP, L.R.C.P. Edin., M.R.C.S., has been reappointed Medical Officer for the Fourth District of the Faversham Union.

ROBINSON, WM., M.D. Durh., M.R.C.S., has been appointed Honorary Medical Officer to the Convalescent Home for Friendly Societies' Members, Grange-over-Sands.

SIBLEY, WALTER K., M.B., B.C., B.A. Camb., has been appointed Physician to the St. George's and St. James's Dispensary, Regent-street, vice Dr. J. E. Squire, resigned.

SKRIMSHIRE, F. W., M.R.C.S., has been reappointed Medical Officer for the Morpeth Union District.

SMYTH, W., M.B., C.M. Edin., has been appointed House Surgeon to the Infirmary, Alnwick, vice Dr. Duncan, resigned.

STANLEY, HUBERT, B.A., B.S. Cantab., has been appointed House Physician to the Metropolitan Hospital, Kingsland-road.

TANNER, C. E., M.D., F.R.C.S. Eng., has been appointed Medical Officer to the Workhouse and North and Seale Districts of the Farnham Union.

TAYLOR, JOHN W., F.R.C.S. Eng., has been appointed Honorary Consulting Gynæcological Surgeon to the Birmingham Skin and Lock Hospital.

WARTERS, W. A., L.R.C.P. Edin, has been appointed Medical Officer of the Riddings and Ironville District of the Belper Union.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement

BOLTON INFIRMARY AND DISPENSARY.—Junior House Surgeon. Salary £100 per annum, increasing by £10 per annum to £150, with furnished apartments, board, and attendance.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—House Physiciancy. No salary, but board and lodging provided.

EDINBURGH CITY POORHOUSE.—Resident Medical Officer. Salary £80 per annum, with board.

LANCASTER COUNTY ASYLUM, Whittingham.—Pathologist. Salary £200 a year, with board, lodgings, washing, and attendance.

METROPOLITAN HOSPITAL, Kingsland-road.—Physician and an Assistant Physician.

NATIONAL ORTHOPÆDIC HOSPITAL, 234, Great Portland-street, London.—Surgical Registrar and Administrator of Anæsthetics. Honorarium £20.

NORTH-WEST LONDON HOSPITAL, Kentish-town-road.—Medical Officer; salary £50. Also Assistant Medical Officer; no salary. Each Officer is provided with board, residence, and washing. Both appointments are for six months.

OWENS COLLEGE, Manchester.—Demonstrator in Materia Medica and Pharmacy. Stipend £100 per annum.

PAROCHIAL BOARDS OF STRATHDON AND GLENBUCKET, Aberdeenshire.—Medical Officer. Salary from the Boards, £65. (Apply to the Chairman.)

PONTEFRACT GENERAL DISPENSARY.—Resident Medical Officer. Salary £130 per annum, with furnished rooms, fire, light, and attendance.

RANGOON MUNICIPALITY.—Health Officer to the Municipality. Salary Rs. 600 per mensem, rising by annual increments of Rs. 50 per mensem to Rs. 1000. (Apply to Mr. J. Short, Secretary, Rangoon Municipality.)

ST. MUNGO'S COLLEGE, Glasgow.—Two Lectureships on the subject of Public Health.

ST. SAVIOUR'S UNION.—Second Assistant Medical Officer at the Union Infirmary, East Dulwich-grove, Champion-hill, S.E., for one year. Salary at the rate of £100 per annum, with furnished apartments, board, and washing.

WESTERN GENERAL DISPENSARY, Marylebone-road, N.W.—Junior House Surgeon. Salary £50 per annum, with board and residence.

WEST LONDON HOSPITAL, Hammersmith-road, W.—House Physician. Board and lodging are provided.

YORK COUNTY HOSPITAL.—Senior House Surgeon. Salary £100, with board and residence.

Births, Marriages, and Deaths.

BIRTHS.

BRUNT.—On April 9th, at Cromelyn, Hampton Wick, the wife of J. Brunt, late Surgeon, Royal Navy, of a son.

FEGEN.—On April 12th, at Brandon, Suffolk, the wife of C. M. Fegen, M.R.C.S. &c., of a daughter.

FELKIN.—On April 12th, at Alva-street, Edinburgh, the wife of Robert W. Felkin, M.D., of a son.

SYMONDS.—On April 11th, at 26, Weymouth-street, Portland-place, W., the wife of Charters Symonds, M.S., F.R.C.S., of a son.

WEBB.—On April 11th, at Wentworth House, Parson's-green, Fulham, the wife of Hugh Webb, L.R.C.P., M.R.C.S., of a daughter.

MARRIAGES.

BAILY—HOPE-JOHNSTONE.—On April 15th, at St. Andrew's Episcopal Church, Callander, Edwin Baily M.B., Oban, to Anne Eleanor, only daughter of the late Robert Gordon Hope-Johnstone.

BURKITT—USSHER.—On April 8th, at St. Stephen's Church, Canterbury, W. A. Handcock Burkitt, B.A., M.B. (Dub.), son of the Rev. Canon Burkitt, of Kilcooley, county Tipperary, to Edith R. Kathleen, daughter of the late Thomas Ussher, Esq., of the Union Club, London, and Kingscliff, Guernsey, C.I.

CRAWFORD—CARR.—On April 9th, at St. Mary's, Hull, Alexander D. Crawford, M.B., C.M., of Coleshill, Warwickshire, to Etty Carr, youngest daughter of the late Rev. James Carr, of The Grove, Waltham, Lincolnshire.

DOWLING—SIDEBOTHAM.—On April 16th, at St. Anne's, Haughton, by the brother of the bridegroom, assisted by the Rector, the Rev. F. Parrett, George William Dowling, M.R.C.S., L.R.C.P. Eng., to Annie Elisabeth, daughter of the late Joseph Sidebotham, Esq., of Erlesdene, Bowdon.

FURBER—MANN.—On April 12th, at St. James's Church, West Hampstead, Edward Price Furber, M.R.C.S., L.R.C.P. Lond., of Oxted, Surrey, son of Charles Furber, of Upper Hamilton-terrace, to Olive Barrow, youngest daughter of the late George Mann, of Hamilton-terrace.

HEARNDEN—HAINES.—On April 10th, at St. Mary's, Byfleet, Walter C. Hearnden, M.R.C.S., of Leatherhead, to Florence Emily, second daughter of W. Haines, Esq., of The Cedars, Byfleet.

HEARNE—ROLAND.—On April 15th, at the English Embassy, Paris, Dr. Edward Campbell Hearne, of London, to Miss Minnie Roland, of Paris.

RICE—BECKTON.—On April 15th, at the Parish Church, West Coker, by the Rev. A. C. Beckton, M.A., brother of the bride, assisted by the Rector, the Rev. W. L. Cotter, M.A., stepfather of the bride, Edward Rice, M.D. Lond., 36, Banbury-road, Oxford, eldest son of the late Bernard Rice, M.B. Lond., of Stratford-on-Avon, to Amelia Curtis, eldest daughter of the late Joseph Beckton, of Didsbury, Manchester.

TERRY—TERRY.—On April 8th, at St. Edmund's, Northampton, Henry G. Terry, M.R.C.S., L.S.A., of Green Park, Bath, to Florence L., eldest daughter of W. Terry, Esq., of Northampton.

TOMKINS—STRETTON.—On April 10th, at the Parish Church, Kidderminster, Henry Tomkins, M.D., B.Sc., Medical Officer of Health, Leicester, to Jane, daughter of the late W. W. Stretton, J.P., of Danes Hill, Leicester.

YOLLAND—RAILTON.—On April 10th, at St. James's, Ireby, John Horatio Yolland, M.R.C.S., eldest son of the Rev. W. Yolland, Vicar of Hoylake, Cheshire, to Emily Constance, second daughter of the late Henry Railton, of Snittlegarth.

DEATHS.

FORBES.—On March 17th, at his residence, 8, Johnstone-street, Bath, in his 94th year, Surgeon-General John Forbes, F.R.C.P. Lond., Inspector-General of Hospitals, Madras Presidency.

HOGG.—On April 14th, at Cambrian Villa, Worksop, Notts, Robert Brown Hogg, M.D., M.B.Edin., aged 39.

JONSON.—On April 13th, at South Eaton-place, S.W., George G. Jonson, L.R.C.P.Edin., aged 82.

MACAULAY.—On April 11th, at Beech Hill, Halifax, Francis Edwin Macaulay, M.R.C.S.

MARTIN.—On April 11th, at Belgrave House, Ventnor, Isle of Wight, John Baratty Martin, M.R.C.S., aged 82.

TATHAM.—On April 12th, at Marlborough-place, Brighton, George Tatham, M.R.C.S., J.P., aged 81.

YATES.—On April 6th, at Sunnyside, Grouville, Jersey, Walter Peel Yates, M.R.C.S. (of Egyptian Lodge, St. Helier's), aged 44.

IN MEMORIAM.—In loving memory of Evelyn Vardon, Esq., M.D., who died at Rome 17th April, 1889. R.I.P.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Stewart's Instruments.)

THE LANCET Office, April 17th, 1890.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Apr. 11	29·82	N.W.	44	43	84	51	38	·01	Cloudy
,, 12	29·84	N.	46	44	97	52	37	..	Hazy
,, 13	29·71	W.	45	41	87	54	37	..	Cloudy
,, 14	29·53	E.	46	43	109	53	42	..	Cloudy
,, 15	29·41	E.	48	45	99	60	45	·02	Overcast
,, 16	29·36	E.	52	50	96	61	47	·23	Cloudy
,, 17	29·45	N.E.	49	47	71	56	46	·01	Overcast

Medical Diary for the ensuing Week.

Monday, April 21.

CHARING-CROSS HOSPITAL.—Operations, 3 P.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.
UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.
MEDICAL SOCIETY OF LONDON.—8.30 P.M. The adjourned discussion on "The Present Position of Abdominal Surgery" will be opened by Mr. Lawson Tait.

Tuesday, April 22.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.
GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same days, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Hon. G. C. Brodrick: The Place of Oxford University in English History.
SOCIETY OF ARTS.—5 P.M. Sir J. Stokes: The Danube and its Trade.
ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND (3, Hanover-square, W.).—8.30 P.M. M. Jacques Bertillon: Anthropometric Identification of Criminals.
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Dr. Alexander Haig: Salicin compared with Salicylate of Soda as to Effect on the Excretion of Uric Acid and Value in Acute Rheumatism, with some Deductions as to the Causation of the Disease.

Wednesday, April 23.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M. Operations by the Obstetric Physicians on Thursdays at 2 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M. Thursday & Saturday, same hour.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M.; Surgical Visits on Wednesday and Saturday at 9.15 A.M.
SOCIETY OF ARTS.—8 P.M. Mr. William Whitaker: Coal in the South-East of England.
HUNTERIAN SOCIETY.—8 P.M. Dr. Herman: On cases of Amenorrhœa from Mental Shock and with Mental Depression.—Mr. Bidwell: On the Treatment of Erysipelas by Hypodermic Injection.

Thursday, April 24.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.
ROYAL INSTITUTION.—3 P.M. Prof. C. V. Boys: The Heat of the Moon and Stars. (Tyndall Lecture.)

Friday, April 25.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
CLINICAL SOCIETY OF LONDON.—8.30 P.M. Mr. W. H. Battle: A case of Tubercular Ulceration of the Bladder; Supra-pubic Cystotomy; Recovery.—Dr. Finlay: A case of Rheumatic Pericarditis, with Delirium.—Mr. E. A. Barton: A case of Gastric Ulcer; Symptoms of Perforation; Peritonitis; Abscess bursting into Bowel; Recovery.—Dr. W. S. Colman and Dr. Jas. Taylor: A case of Raynaud's Disease not associated with Hæmoglobinuria, in which there were Local Changes in the Blood.
ROYAL INSTITUTION.—9 P.M. Sir John Lubbock: The Shapes of Leaves and Cotyledons.

Saturday, April 26.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.
ROYAL INSTITUTION.—3 P.M. Capt. W. de W. Abney: Colour and its Chemical Action.

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

A MEDICAL PATRIOT.

EXCEPTIONALLY favoured in its confidential advisers, the House of Savoy has had no wiser, more devoted, or more successful minister than Giovanni Lanza, the medical practitioner of Casella in Piedmont, the Premier whose wise, undeviating policy conducted Italy to Rome. Of Spartan simplicity of life, he never drew any official emolument from the high posts he held, but, when President of the Chamber of Deputies, he lived in the capital at a modest inn on only 150 lire (£6) a month. On his death a few years ago he left his widow the small fortune he had amassed in private practice—a bequest which would have been much larger but for the constant charity he exercised concurrently with his art. The financial ordeal through which Italy is still passing has curtailed yet more the scanty means of the widow Lanza, and the fact having reached King Humbert, His Majesty, in a characteristically delicate manner, caused the lady to be informed that there had been placed at her command a life-pension sufficient for her wants, though not, of course, proportioned to the services of Dr. Lanza. With equal delicacy the widow conveyed her refusal of the gift, saying, "*So vivesse lui*, non l'avrebbe permesso; morto, *gli farei dispiacere.*" (If he were alive, he would not have allowed it; now that he is dead, I should be causing him displeasure.) The incident has revived throughout Italy the kindliest recollections of the medical Premier and patriot, while his widow is compared to the noble matron of classic Rome: "domi mansit, lanam fecit."

T. F. F.—The receipt of the newspaper was acknowledged in our last issue. The report will have attention.

"DEFENCE OF MEDICAL AID SOCIETIES."

To the Editors of THE LANCET.

SIRS,—A letter appeared in your columns, signed "Anti-Humbug," which at first escaped my notice, advancing the claims of medical aid societies, one of which your correspondent appears to hold, and this consisting of 400 members at a charge of a halfpenny per week under twelve years, and a penny per week above that age. All I wish to remark is that the experience of "Anti-Humbug" with regard to the lucrativeness of our profession is diametrically opposed to my own. Of course, it may be that your correspondent is unusually mindful of small mercies, as we have need to be in the present state of competition; otherwise I can only account for (what to me are) his extraordinary assertions on the somewhat remote hypothesis that the sanitary condition of the locality wherein his club members reside is marvellously salubrious, or, as an alternative, that provisions are so unusually cheap in his locality that a halfpenny per week there is equivalent to a good deal more elsewhere. It has truly been said, "We are fearfully and wonderfully made," and, considering the exquisite delicacy and complex structure of the human body, it is surprising how we retain our health and vigour as we do; but the idea of taking, say, 200 children under twelve years of age at a halfpenny per week, and making ourselves professionally responsible for all the ills that flesh is heir to, for 8s. 4d. per week (calculating 200 of the halfpenny per week members) seems to me to exceed the jubilant expectations of even the inspired writer.

I am, Sirs, yours obediently,

London, April 3rd, 1890. ANOTHER ANTI-HUMBUG.

DISCIPLINE IN THE ROYAL COLLEGES OF SCOTLAND.

Patient.—It is impossible to say what view the Royal Colleges of Scotland will take of their duty in the case described. We should advise our correspondent to lay the facts before the Colleges, and we shall be glad to be informed of the result. The display of a little more of the authority of the Colleges over the conduct of their members would be very useful.

THE LATE DR. R. RIDDELL.

AT a meeting of the Council of the Poor-law Medical Officers' Association, held at their rooms, 3, Bolt-court, Fleet-street, on Thursday, April 10th, the case of Mrs. Riddell, widow of the late Dr. R. Riddell, of Dunsford, Exeter, was taken into consideration. It may be in the recollection of many of our readers that Dr. R. Riddell, District Medical Officer of St. Thomas's Union, was so dealt with by his board of guardians that the central authority ordered him to resign, which so preyed upon his mind that he took a fatal dose of poison, leaving a widow and several children without means of subsistence. The late Dr. Joseph Rogers took great interest in this case, and had he lived would no doubt have caused the present appeal to be unnecessary. Mrs. Riddell is now supporting herself and children by keeping a lodging-house in Belfast; but a debt of £50 now remains on the house, to be paid off on the 1st of May, which, if not discharged, will result in her furniture being seized, and her means of getting a livelihood stopped. She now appeals to the profession for help to stave off this calamity. The Council proposed to give the sum of £10 10s., which has to be confirmed at the next meeting, and it is to be hoped that others will assist in this really genuine case.

P. R. G.—The position, as described, would be an undignified and unsatisfactory one, though not one that is contemplated in the Medical Council's definition of "covering." Is it not possible that the balance of the money kept off wages is to be used for the benefit of the men as a sick fund?

TOOGOOD *v.* WILKES.

To the Editors of THE LANCET.

SIRS,—Kindly allow me to acknowledge, through THE LANCET, the receipt of the following additional subscriptions to the Wilkes Indemnity Fund.

Dr. Wilks, £1 1*s.*; Anonymous, £23 5*s.* 4*d.*; Amount previously acknowledged, £57 4*s.* 1*d.*—Total, £81 10*s.* 5*d.*

This covers the whole of Mr. Wilkes's costs, and closes the list.

I am, Sirs, yours faithfully,

Salisbury, April 14th, 1890. H. J. MANNING, Treasurer.

To the Editors of THE LANCET.

SIRS,—Kindly allow me the permission, through your columns, to say how grateful I feel for the sympathy shown me by the profession in the action in which I was the defendant (Toogood *v.* Wilkes), and still more for the generous feeling which influenced so many friends and subscribers to defray the legal expenses I had incurred. A cheque for the amount, £81 10*s.* 5*d.*, has been sent me by Mr. H. J. Manning, Laverstock House, Salisbury, who has been treasurer to the fund, and whose kindness and able assistance throughout I shall never forget.

Let me hope that Section 12 of the new Lunacy Amendment Act may still be of service to any of us who may yet require to avail ourselves of it. I find how growing the feeling is that whilst we are giving a certificate "in good faith and with reasonable care" (which we have to prove and not defend, as laid down by Mr. Justice Field, and when proved we may not even get our costs), we should act wisely, until our opinions are treated as scientific and privileged, in declining to incur all the risks involved in an honest discharge of professional duty.

Let me thank you for the interest you have taken in the matter, and

Believe me, faithfully yours,

Salisbury, April 12th, 1890. W. D. WILKES.

TRINITY UNIVERSITY, TORONTO, M.D. DEGREE.

IN reference to a communication from Mr. W. A. H. Barrett, which appeared in our issue of March 15th, 1890, stating that Trinity University, Toronto, grants the degree of M.D. after examination, without residence, to registered British practitioners of five years' standing, and referring for information to the Rev. R. Kendall of Southsea as the representative of the University in England, we are asked by the Rev. Dr. Body, the Vice-Chancellor of Trinity University, who is now in England, to state that from numerous letters which have been received it is clear that great misapprehension exists on the matter. Trinity University, Toronto, holds no examinations for Medicine in England, nor has it ever done so. All persons qualified as registered British practitioners of five years' standing who desire to become candidates for its degrees must take the Final Examination, both written and clinical, in Toronto, in accordance with the ordinary requirements of the University. Any such persons should communicate directly with the Registrar, Trinity University, Toronto.

"A NEW OPERATION FOR THE RELIEF OF ENTROPION."

To the Editors of THE LANCET.

SIRS,—As I have been asked by some medical men wherein my recommendation agrees with, and wherein it disagrees from, Mr. Evans's operation, kindly permit me to apologise for the want of lucidity in my letter of the 8th inst., published in your last issue, and to say that Mr. Evans's first incision completes my operation, and is the cause, I believe, of his success, and that his second and third incisions are unnecessary. I am, Sirs, yours truly,

April 16th, 1890. JOHN ROCHE.

VACCINIA AND VARIOLA.

THE authors of the "Diseases and Disorders of the Ox," in reference to a passage in the review we gave of the book last week, remark as follows:—

> "In speaking of the question of identity (a word which should, we think, be used very sparingly in regard to the relationship of a disease of one animal to a similar disease in another kind of animal or in man), we would beg to point out that the supposed transformation of human small-pox into cow-pox need not imply the probability of 'the converse reproduction of small-pox from cow-pox.' Indeed, if this were at all a likely contingency, then there would not be such good grounds for a belief in the efficacy of vaccination as a protection against small-pox as we believe there are. It seems more likely that when the virus of small-pox is changed (if it can be thus changed) into that of vaccine, it is, so to say, permanently altered; that the virus of small-pox and that of vaccinia are dissimilar, at least to the extent that the latter does not tend to be converted into the former; while, on the contrary, we may believe it to be very possible that the virus of human small-pox may be so modified by transference to the cow as to be converted into that of vaccinia."

The authors also direct our attention to the fact that Messrs. Allen and Co. of Waterloo-place are the publishers of the work.

Scrutator.—If our correspondent will study our words, he will find them accurate, and not inconsistent with the fact that at present American degrees are not registrable in England. This is not for want of "enabling English legislation."

Mr. C. G. Lee.—Probably; but we should like to see the paper before making a definite promise.

EXTRAORDINARY INCOME-TAX OVERCHARGE.

To the Editors of THE LANCET.

SIRS,—We would ask permission to call the attention of all members of the medical profession to a very flagrant overcharge we accidentally discovered. One of our clients gave us all his receipts for taxes and rates, and to our astonishment we found that the collector's receipt for income-tax on the house was for £130 more than the gross valuation. There is no mistake about this being a fact; for we wrote to the Inland Revenue, and, after some correspondence and difficulty, we have received on the behalf of our client a refund of the overcharged tax. A most suspicious circumstance is that the Inland Revenue, who are not prone to refund, did so in this case sooner than give any explanation. As we think this cannot be a solitary instance, we advise dwellers all over London to look at their collector's receipts. We shall be glad to do so without charge for any of your subscribers enclosing the receipts to us, with a stamped addressed envelope for the return of them.

We are, Sirs, yours truly,

INCOME-TAX REPAYMENT AGENCY.

25, Colville-terrace, Powis-square, W.

INDECENT ADVERTISEMENTS ACT.

THE organ of the National Vigilance Association says:—

> "We, as well as the police, have been upon the alert to capture offenders against this Act; but we must say that since the date of its coming into operation we have not been able to find a genuine case of infringement. Handbills are still distributed; but they are couched in terms of decency, and although referring to diseases in terms that would be readily recognised by the man of the world, they are perfectly inoffensive and harmless in themselves. If patients were to consult the quacks who issue them, the results to themselves would be bad or good; but the result, if bad, would be the result of the application to the quack, and not of the indecency of the handbill. This is a clear distinction, and one which the magistrates, of course, keep in view. It is also to be borne in mind that while a charge of distributing is easy to prove, a charge of knowingly causing the distribution is difficult of proof."

It has been held by a magistrate that newspaper advertisements do not come under the Act, but the Society intends to take a test case to a higher court.

COLLECTIVE INVESTIGATION ON CANCER.

To the Editors of THE LANCET.

SIRS,—In response to the request contained in my letter published in THE LANCET of February 15th, that those members of our profession who are able to do so should forward me, *before April 30th next*, accounts of unpublished cases of cancer in which, after a lapse of at least five years from the destruction or extirpation of the growths, there has been no return of the disease, I beg to acknowledge the receipt of notes from Mr. Roper of Exeter, and from Mr. Wagstaffe of Sevenoaks. The latter gentleman, recognising the importance of this inquiry, suggests that another reminder should be given as to the date mentioned for the limit, which is drawing near, and I therefore trust you will kindly insert this letter in your next issue.

I am, Sirs, yours faithfully,

CHAS. E. JENNINGS, F.R.C.S.

Upper Brook-street, Grosvenor-square, W., April 12th, 1890.

MEDICAL ADVERTISEMENT.

A CARD has reached us with a heading "Pridmore's Vaccination Station," and a portrait of a gentleman in the left hand upper corner, which it is difficult to believe is meant for Mr. Pridmore, for he looks a modest, well-meaning gentleman who would not so violate all professional taste. On the other hand, it is still more difficult to believe that anyone else would take such a liberty with Mr. Pridmore's name and portrait.—The following in the form of a card has also been sent us for our opinion thereon: "Linlithgow. — Card. — Dr. J. Mackenzie, 37, High-street, Linlithgow." Even such comparatively colourless advertisements are to be disapproved. It is not through the newspapers that the medical man becomes properly known to the public or respected by his brethren.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Poore, London; Mr. Ballance, London; Mr. Rivington, London; Dr. Ward Cousins, Southsea; Dr. Horrocks, London; Dr. Roche; Dr. Hingston Fox, London; Mr. F. Treves, London; Prof. Crookshank; Mr. Pode, Devonport; Dr. A. Money, London; Dr. W. Squire; Dr. Jacoby, Maryborough; Mr. W. A. Lane; Mr. J. Kirk; Mrs. Draufold; Mr. Byam, London; Mr. C. W. Dean, Lancaster; Mr. Marriott; Dr. Keep, Bromsgrove; Mr. Blackett, London; Mr. Ryan; Mr. Loch; Mr. Pires; Mr. C. E. Jennings, London; Mr. Abbott, Braintree; Dr. Jardine, Baillieston; Mr. Thomson, Oxford; Dr. H. C. Pope, London; Dr. S. Lang, London; Dr. Stevens, London; Mr. Tiplady, Kirkwall; Dr. A. Smith, London; Mr. Allan, London; Mr. Girling, Halifax; Mr. C. E. Shelly, Hertford; Dr. Manning, Salisbury; Surgeon-Major Lawrie, Hyderabad; Mr. Wilkes, Salisbury; Mr. Stoward, London; Mr. A. Duke, Dublin; Mr. Twynam, Darlinghurst; Dr. Sizer, Brooklyn, New York; Dr. Turner, Gibraltar; Dr. H. Woods, Highgate; Dr. Fletcher Beach, Dartford; Dr. Walters, Reigate; Messrs. A. M. Smith and Co., London; Dr. Randall, London; Messrs. Duncan, Lockhart, and Co., Edinburgh; Mr. C. H. Byers, London; Messrs. Richardson and Co., Leicester; Mr. F. H. Moore, Liverpool; Mr. W. Lockwood, West Bromwich; Dr. Gibbard, Newcastle-on-Tyne; Mr. C. Hyslop, Church Stretton; Mr. Poland, London; Mr. Humphry, Stone; Messrs. Back and Co., London; Dr. Welch, Handsworth; Messrs. Van Houten and Zoon, Holland; Dr. Webster; Dr. Davidson, Chester; Messrs. Allen and Hanbury, London; Dr. A. H. Frere, Horham; Dr. Dale, King's Lynn; Dr. Skinner, Hendon; Mr. Wenry, Boscombe; Messrs. Duker and Co., Berlin; Dr. Illingworth, Accrington; Messrs. Battley and Watts, London; Mr. H. R. Davies, London; Mr. W. Hume, Edinburgh; Mr. Baxendell, Blackpool; Dr. Paterson, Cardiff; Dr. H. E. Harris, London; Mr. Blandy, Nottingham; Mr. Prentice, Canterbury; Mr. E. C. Green, Derby; Mr. Kingsford, Bolton; Messrs. Powneeby and Co., London; Dr. F. T. Taylor, Lewisham; Messrs. Coxeter and Son, London; Mr. Shaw, London; Dr. Goddie, Leeds; Messrs. Griffin and Co., London; Mr. Rust, Kidderminster; Messrs. Reynolds and Branson, Leeds; Rev. J. H. Fry, Boulogne; Mr. Thompson, North Devon; Mr. Auld, Glasgow; Mr. Grant, Dundee; Messrs. Cooper and Holt, London; Mr. Leitersshofen, Homburg; Messrs. Fannin and Co., Dublin; Mr. Dowell; Mr. C. G. Lee, Liverpool; Messrs. Straker and Son, London; Mr. McClean, Walthamstow; Messrs. Battle and Co., Paris; Mr. Sacker, London; Mr. Purland; Messrs. G. Street and Co., London; Mr. Somerset, Chelmsford; Messrs. Schweitzer, London; Mr. Maynard, Brighton; Mr. Lane, co. Derry; Mr. J. B. Browne, London; Mr. Ayerst, Cambs; Prof. Vargas, Madrid; Dr. Davies, Newport; Mr. Sell, London; Dr. Collier, Suffolk; Dr. Beckett, Victoria, Australia; Mr. Morton, Glasgow; Mr. Cooke, London; Mr. Masson, Paris; Mr. Wilson, Skipton; Dr. Pearce, Paris; Mr. Blomfield, Pontefract; Mr. Marshall, London; Messrs. Stern, London; Mr. Wraith, Darwen; Dr. Peacock, Dudley; Mr. Scott, Manchester; Mr. McKee, Dublin; Mr. Perks, Burton-on-Trent; Mr. Bannatyne; Mrs. Gilbert, Eastbourne; Mr. Fuge, Taunton; Mr. Frowde, London; Messrs. Lee and Martin, Birmingham; Dr. Stewart, Gloucester; Messrs. Blondeau et Cie., London; Mr. Hornibrook, London; Messrs. W. H. Smith and Son, London; Dr. Skerritt, Bristol; Dr. Hime, Bradford; Messrs. Lee and Nightingale, Liverpool; Mr. McCarthy, Salop; Messrs. Robinson and Sons, Chesterfield; Mr. Thompson, London; Dr. Cooke, Sheffield; Surg.-Major Scott, Southampton; Dr. Lloyd Tuckey; Mr. R. Hewetson, Leeds; Practice, London; Treasurer, National Orthopædic Hospital, London; M. D.; Vicar, Loughboro'; Secretary, Western General Infirmary, Marylebone; Max; Secretary, Royal Portsmouth Hospital; H. C., Glamorgan; Cyclops, London; Secretary, General Hospital, Birmingham; The Authors; Q., London; Nucleus.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Marsh, Bournemouth; Mr. Tully, Hastings; Dr. Oldham, Derby; Mr. Watt, Aberdeen; Dr. Blair, Goole; Mr. Thomas, Bridgend; Mr. Tomkins, Leicester; Miss Wade, Bath; Mr. Hensley, Devon; Mr. Anderson, Carmarthen; Mr. Huish, London; Mr. Lewis, London; Mr. Piskett, Lowestoft; Dr. Reynolds, Cambs; Mr. Wilde, Emsworth; Mr. Irving, Stoke-on-Trent; Miss Laudale, Bannockburn; Mr. Thomson, Loughboro'; Mr. Campbell, London; Mr. Cropley, Northampton; Mr. Lyle, Dalston; Dr. Philpots, London; Mr. Tasker, Sheffield; Mr. Symonds, London; Mr. Macnamara, London; Dr. Augusta; Mr. Tyte, Minchinhampton; Mrs. Cowan, Perth; Miss Carson, Cheshire; Mr. Channey, Bournemouth; Mr. Pagenstecker, Stratford; Dr. Harding, Whittlesea; Dr. Cameron, Liverpool; Mr. Evans, Penybont; Mr. Browning, Sheffield; Mr. Elliott, Carlisle; Mr. Deacon, Manchester; Mr. Clarke, Notting-hill; Mr. Halsey, Essex; Mr. Tipper, Hertford; Dr. Waller, Peterboro'; Mr. Daglish, Jarrow-on-Tyne; Mr. Rice, Leamington Spa; Dr. Hooper, Alfreton; Mr. Tresidder, London; Messrs. Fenwick and Chinery, London; Mr. Halahan, Glenagarey; Messrs. Wright and Mackenzie, Romford; Miss Brewis, Edinburgh; Messrs. Hewlett and Son, London; Mr. Harries, Aberdare; Mr. Shone, Bucks; Mr. Bean, Liverpool; Dr. Maynard, Erith; Mrs. Pratt, Liverpool; Mr. Heywood, Manchester; Major Pead, Dulwich; Dr. Elphick, Chester; Mr. Dixon, Northampton; Mr. Gleaves, Lewisham; Mr. Malins, Edgbaston; Mr. Dowling, Bowdon; Colchester, London; A. B., Anerley; Tincture; Nurse Murray, Middlesbrough; M.B., Southport; Manager, Hackney Furnishing Co., London; Harold, London; A. B., London; Halifax Infirmary; Lex, Portsea; R. L. P, Oswestry; Secretary, Ancoats Hospital, Manchester; X., London; C. M., London; Secretary, City Hospital for Infectious Diseases, Newcastle-on-Tyne; Euonymised Cocoa Co., Birmingham; Ruhtra, London; H., London; A. B., Great Eastern-street; Massage, London; C. W. R., London; Mrs. K., West Kensington; Margaret, London; T. R., London; Secretary, Mercer's Hospital, Dublin; M. H., Northampton; Medicus, Folkestone; S., Fleet-street; Alpha, Birmingham; Sanitary, London; Medicus, Sheffield; Alpha, Somerset; Medicus, Southsea; T. A., Aberbeeg; Beta, London; Physician, London; J. C. O., London; Linnæus; Bona Fides, London; T. R. A., London; Doctor, Burnley; Medicus H.O., Manchester; S. C. C., London; A. O. F., London; H. T., Bloomsbury; H. C., Folkestone; Femur, Leicester; Central, London; Z. A., London; G. M. D., London; C. D., London.

NEWSPAPERS.—*Burnley Express, Cork Examiner, Nottingham Evening Post, Edinburgh Evening Dispatch, Oldham Standard, Belfast News Letter, St. Helens Newspaper, Evening Press (York), Umpire, Sunday Chronicle, English Mechanic, Evening News and Post, Hertfordshire Mercury, Mining Journal, Local Government Chronicle, Weekly Free Press, Liverpool Daily Post, City Press, Kilkenny Journal, Sunday Times, Builder, Surrey Advertiser, Sheffield Daily Telegraph, Leeds Mercury, Metropolitan, Broad Arrow, Windsor and Eton Express, Star, Record, Bristol Mercury, Blackpool Times, New York Herald (London), Pharmaceutical Journal, Reading Mercury, West Middlesex Standard, Chemist and Druggist, St. James's Gazette, Public Opinion, Temperance World, North Star, Court Circular, Wigan Examiner, Ockley Courier, Queen, West Middlesex Advertiser, Alliance News, Spectator, Hull Daily News, West Herts Post, Merck's Bulletin, Middlesex County Times, Birmingham Gazette, Manchester Evening News, Sussex Daily News, Bristol Evening News, Home and Colonial Mail, Carpenter and Builder, Weekly Chronicle, Scarborough Gazette, Wimbledon Herald, &c.*, have been received.

SUBSCRIPTION.

POST FREE TO ANY PART OF THE UNITED KINGDOM.

One Year ..... £1 12 6 | Six Months £0 16 3
TO CHINA AND INDIA ..... One Year 1 16 10
TO THE CONTINENT, COLONIES, AND UNITED STATES ..... Ditto 1 14 8

Post Office Orders and Cheques should be addressed to The Publisher, THE LANCET Office, 423, Strand, London, and crossed "London and Westminster Bank, St. James's-square."

ADVERTISING.

Books and Publications (seven lines and under)							£0	5 0
Official and General Announcements	..	..	..	..	..	..	0	5 0
Trade and Miscellaneous Advertisements						..	0	4 6
						Every additional Line	0	0 6
Front Page	..	..	..	..	..	per Line	0	1 0
Quarter Page	..	..	..	..	..	..	1	10 0
Half a Page	..	..	..	..	..	..	2	15 0
An Entire Page	..	..	..	..	..	..	5	5 0

The Publisher cannot hold himself responsible for the return of testimonials, &c., sent to the office in reply to advertisements; copies only should be forwarded.

NOTICE.—Advertisers are requested to observe that it is contrary to the Postal Regulations to receive at Post Offices letters addressed to initials only.

An original and novel feature of "THE LANCET General Advertiser" is a special Index to Advertisements on pages 2 and 4, which not only affords a ready means of finding any notice, but is in itself an *additional* advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to advertisements appearing in THE LANCET.

Terms for Serial Insertions may be obtained of the Publisher, to whom all letters relating to Advertisements or Subscriptions should be addressed.

Advertisements are now received at all Messrs. W. H. Smith and Son's Railway Bookstalls throughout the United Kingdom and all other Advertising Agents.

Agent for the Advertisement Department in France—J. ASTIER, 66, Rue Caumartin, Paris.